

DEPARTMENT OF SOCIOLOGY
UNIVERSITY OF PITTSBURGH

SOME PUBLIC VIEWS ON
CIVIL DEFENSE PROGRAMS

BY

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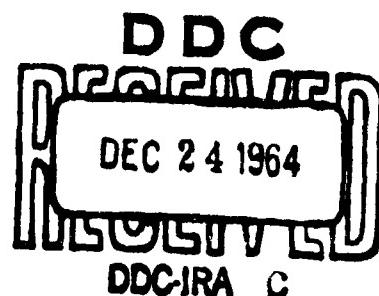
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OFFICE OF CIVIL DEFENSE
OFFICE OF THE SECRETARY OF THE ARMY

OCD-OS-63-48
DECEMBER, 1964

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CIVIL DEFENSE PROGRAMS

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AND

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INTRODUCTION

These four reports are based on a survey of Civil Defense and Cold War Attitudes conducted in mid-1963 under a contract between the University of Pittsburgh and the Office of the Secretary of the Army, OCD-OS-63-48. Interviews were conducted with a national probability sample of 1,434 Americans. The field work and sample design were done by the National Opinion Research Center (NORC) of the University of Chicago.

Each report takes as a topic a key aspect of the sample's orientation to civil defense systems and cold war issues and analyzes it in terms of relevant social and personal characteristics. Interview schedules were administered in the summer of 1963 and dealt with the likelihood and desirability of various alternative shelter systems and cold war outcomes. In addition to the data collected on attitudes and opinions on the central issues respondents were asked a series of questions specifying pertinent elements of their social and personal attributes. These dealt with such topics as marital status, family income, education, age, etc., and a variety of other questions tapping these dimensions.

These reports have been prepared by the Director and staff of the Research Office of the Department of Sociology of the University of Pittsburgh. Abstracts of the reports follow this introduction.

ABSTRACTS

COST OF CIVIL DEFENSE: A STUDY OF PUBLIC VIEWS Jiri Nehnevajsa

This report is based on the responses of 1,434 Americans in a national probability sample to a series of items concerning their perception of the cost of American's civil defense programs and their estimates of how much the United States ought to be spending. The preferred level of annual spending is found to be substantially higher than the estimated current level of spending. This holds for all population categories considered. Further, this estimated level of expenditure is much higher than the actual civil defense spending for current programs. The public believes that national civil defense spending has been much larger than, in fact, it has been. Generally, the public seems to feel that more should be spent. It appears that the public is more receptive to civil defense expenditures when they are phrased in terms of per capita spending rather than total annual cost.

LEVEL OF PREPAREDNESS Dorothy V. Brodie

A national probability sample of 1,434 Americans was queried concerning its level of civil defense preparedness. This report is based on analysis of responses to two key questions. The respondents were asked if they and their families had a fallout shelter which they had set up themselves. Those respondents who had no shelter were then asked if they were protected in any way and how they were protected in case of nuclear attack. This essentially provides two different levels of preparedness, real (for those who have shelters) and perceived (for those who have no shelters but feel protected for a variety of reasons).

The figure of 2.2 percent of the sample as shelter owners is comparable to reported findings of other studies in this area. The small size of the shelter owner sub-group in the analysis limits the conclusions that can be drawn from a comparison of them with non-shelter owners. Generally, however, those respondents in our sample who were shelter owners tended to be young, to own their own home, rather well educated,

high income and high status, resident in the Northeast and Republican in political preference.

About a quarter of the sample, 24.9 percent, felt that they had some protection even though they weren't shelter owners. These people have many characteristics in common with shelter owners. Generally speaking they are a little younger than shelter owners and of somewhat lower status, although their status characteristics still rank objectively rather high. Their perceived protection comes from an impromptu shelter in the home, or a community shelter. Those relying on community shelters were generally lower in status than those relying on impromptu home shelters.

MARKING AND STOCKING PROGRAM

Donna Krochmal

Respondents in a national probability survey of 1,434 Americans were asked to describe the present Civil Defense program in their respective communities in terms of the surveying, marking and stocking of available shelter spaces. They were also asked how likely it was that shelter spaces are marked and stocked with everything necessary for survival as well as how desirable this might be. They were then asked how desirable they thought this was for their neighbors and the President.

Ninety percent of the sample felt it desirable that shelter spaces be marked and stocked while three fourths of them thought it certain or likely that this would actually happen. Similarly, ninety percent felt that their neighbors also found this program desirable and over ninety percent thought the President was favorable. However, a little more than half the sample claimed that they knew of nothing that has been done for Civil Defense in their communities. Generally, these results seem to be pretty homogeneous, with no major population sub-group differences. To some extent respondents of higher socio-economic status were more informed about the program than those of lower status. Both socio-economic groups manifested similar likelihood patterns but the lower status groups found the marking and stocking program more desirable than the higher status groupings.

INFORMATION LEVEL

Richard Pomeroy

This report is based on the mid-1963 survey of Civil Defense and Cold War Attitudes. It examines the overall information level of a national probability sample of 1,434 Americans on the topics of nuclear war and fallout shelters. Respondents were asked to recall any movies, television programs, or reading material they may have encountered that dealt with nuclear war or fallout shelters. Over two thirds of the sample reported exposure to information on these topics. These "exposed" respondents tend to be young, well educated, high income, have a number of young children and work at a relatively high-status occupation. They are likely to live in urban and suburban rather than rural areas and the male head of household usually had military service. The most frequently reported source of information was from articles, pamphlets, etc., with 67.2 percent of the sample being able to recall one or more of these. A total of 54.0 percent recalled a movie or TV program. Very few had read any "books" on these topics and the books mentioned were usually popular novels. In large part the "information" communicated by movies and television was essentially non-technical, usually consisting of a science fiction production rather than a factual report. Although the content of the information respondents were able to recall was usually some form or another of "entertainment", this was not always the case. Of those respondents actually replying to the items from the questionnaire, some sixteen percent recalled exposure to Civil Defense sponsored literature and another 6.9 percent mentioned other government agencies as sources of information on nuclear war and fallout shelters. Thus, over a fifth of the sample, 22.9 percent, were able to recall reading of material sponsored by either the Office of Civil Defense or by some other government agency.

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COST OF CIVIL DEFENSE: A STUDY OF PUBLIC VIEWS

By Jiri Nehnevajsa

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1. Introduction

In his opening statement on May 28, 1963, before the Subcommittee No. 3 of the Committee on Armed Services of the House of Representatives, Steuart L. Pittman, Assistant Secretary of Defense, discussed six basic choices which the nation faces in its decisions about the kind and scope of civil defense programs that might be adopted.¹ The first alternative involves essentially a "no shelter policy". This is an inexpensive option. In fact, Secretary Pittman suggested that it might be even better to drop the subject of civil defense entirely save for the program's applicability to coping with natural disasters and continuity of government under possible conditions of war.

The second alternative is based principally on continuing of shelter survey programs with provisions for appropriate support systems. It might cost the Federal Government about \$100 million annually.

The third alternative--the actual proposal on the part of the Administration for the Committee's consideration--entails costs of \$300 million annually.

The fourth program, which envisages a build-up over a five-year period to supply enough fallout shelter spaces for the entire population, was estimated as totalling to \$2.1 billion; hence, about \$400 million annually.

The fifth alternative augments the previous option by some blast protection in likely target areas. Its costs come to some \$20 billion over five to seven years; thus between \$3 and \$4 billion annually over this duration.

The sixth alternative involves full fallout shelter systems coupled with antiballistic missile defenses. Its total cost might be somewhat similar to that of the fallout-and-blast shelter option.

Between late June and early August, 1963, we conducted a nationwide study of attitudes toward the Cold War and civil defense.² The field work was done by the National Opinion Research Center of the University of Chicago, and the sample design called for a probability sample of 1,500 Americans. Actually, 1,434 interviews were completed before the cut-off date for the field operations, and the discrepancy between the planned-for and the actual number is accounted for by impossibility to reach some respondents even after a substantial number of call-backs.³

This report deals with the costs of civil defense programs. The respondents were asked how much they thought the nation was spending for civil defense; and also, how much they thought the United States ought to be spending.

Thus it is possible to place the program levels which Secretary Pittman laid out before the Congress into a context of the nation's estimates as to what is being spent, and evaluations as to what ought to be spent.

We are not assuming that people know, or should know, what civil defense efforts are costing. Nor are we assuming that they should be able to total all the complex figures to arrive at some actual amount that they think the country should be investing in the programs. Rather, public cost estimates are one type of expression of attitude, and the relative reasonableness of the cost figures cited is not at issue.

Yet, the data have important implications. This report will explore them, and make them explicit in the process.

2. Images of Civil Defense Costs

To establish what Americans believe is being spent on civil defense, we asked the following question:

"How much would you guess our country is spending at the present time yearly for each man, woman and child for Civil Defense programs? Less than a dollar a year? Less than five dollars? Ten dollars? Twenty-five? Fifty? Or over fifty?"⁴

Table 1. provides the national distribution both relative to the total sample and to those respondents who were willing to make an estimate.

Table 1.

ESTIMATES OF ANNUAL CIVIL DEFENSE EXPENDITURES
FOR EACH MAN, WOMAN, AND CHILD

	<u>In Percent</u>	
	<u>Total Sample</u>	<u>Excluding Don't Knows</u>
Nothing	0.7	0.9
Less than \$1.00	13.7	17.2
\$1.00-\$5.00	27.8	35.0
\$5.00-\$10.00	14.4	18.1
\$10.00-\$25.00	8.7	11.0
\$25.00-\$50.00	6.1	7.7
Over \$50.00	8.0	10.1
Don't know	20.3	XXX
No answer	0.3	XXX
	(100.0) (1434)	(100.0) (1137)

The November 15, 1963 Current Population Report estimates the nation's population in the fall of 1963 as 190,039,000 including Armed Forces abroad, 189,306,000 total resident population, and 187,297,000 total civilian population. We shall use the latter figure--the estimated civilian population of 187.3 million--to arrive at the perceived program levels.⁵

It is clear from Table 1. that about one in five Americans are unable to make a guess as to annual civil defense expenditures. The median estimated cost is \$4.64 per person. This means that the respondents as a whole believe that the current program level is about \$869 million annually.

The figure is more than almost a triple of that which was involved in the Administration proposal considered during the summer and fall of 1963 (H.R. 8200); and it is 2.2 times higher than the full fallout shelter program which Secretary Pittman sketched out as the fourth alternative.

In all, 18.1 percent of the respondents think that the nation is spending less than \$187 million annually (that is, less than \$1.00 or nothing per person). And 17.8 percent are convinced that we are spending at an annual rate of about \$4.7 billion (these are respondents who say that the expenditures are \$25.00 or more yearly).

There are sharp regional differences (Table 2.) when we consider the respondents who on one hand think that less than \$200 million is being spent, and those who are convinced that the civil defense effort already involves billions of dollars per year.

Table 2.

PERCENTAGES OF RESPONDENTS BY NATION'S REGIONS
WHO ARE OF THE OPINION THAT LESS THAN \$200
MILLION, OR MORE THAN \$4 BILLION IS BEING
SPENT ON CIVIL DEFENSE PROGRAMS ANNUALLY

	<u>In Percent</u>		Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
New England	15.6	8.8	3.69
Middle Atlantic	19.1	15.8	4.46
East North Central	16.3	17.2	4.61
West North Central	18.9	22.8	6.20
South Atlantic	19.1	14.5	4.46
East South Central	31.8	15.9	3.91
West South Central	21.0	13.5	4.01
Mountain	5.3	13.1	7.00
Pacific	15.1	28.3	4.47

The highest median (Mountain states including Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming) amounts to an estimated annual program at \$1.3 billion. In the West North Central states (Iowa, Kansas, Nebraska, Minnesota, Missouri, North Dakota, and South Dakota), the result yields an annual level of \$1.2 billion approximately. Even the lowest estimate (New

England) adds up to \$691 million yearly, and the second lowest estimate (East South Central states including Alabama, Kentucky, Mississippi, and Tennessee) comes to an annual program cost of \$732 million.

It seems particularly useful to consider the extreme groups of respondents. Those who believe that the annual expenses are less than \$200 million, and those who think that they already exceed \$4 billion. The reason for this is simple enough: other than the "no shelter program", all the realistic program levels fall above the \$200 million mark. And only the two most demanding options--fallout shelters with some blast shelters in likely target areas, and fallout shelters coupled with antiballistic missile defense--exceed an annual expenditure of \$4 billion according to the current and best available Administration estimates.

In this sense, 16.4 percent of white respondents guess at costs compatible with the most expensive alternatives; whereas 28.0 percent of Negro respondents do so. On the other hand, 18.5 percent of the whites estimate expenses below \$200 million, and 14.4 percent Negroes do.

Men believe that the nation is spending less (median of \$4.12) than women estimate (median of \$5.24). Among men, 14.7 percent fall beyond the \$4 billion program level, and 23.0 percent below the \$200 million plateau. Among women, the percentages are 20.5 (beyond \$4 billion) and 13.7 percent (less than \$200 million).

Although attitudes toward civil defense generally correlate with age (in that younger people consistently appear to be more favorable than older people), no clear patterns emerge when it comes to assessing current costs. The various age groups are quite similar to one another except for the youngest people (20-29 years of age) among whom the median guess comes to \$6.38 while it ranges between \$4.18 and \$4.56 for the remaining age groups.⁶

Table 3.

ESTIMATED ANNUAL COSTS OF CIVIL DEFENSE
PROGRAMS BY MARITAL STATUS
OF RESPONDENTS

	<u>In Percent</u>		Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
Married	18.4	16.6	4.46
Single	14.2	23.6	6.99
Divorced	21.0	28.9	6.99
Separated	16.7	20.0	7.14
Widowed	21.2	15.4	3.85

Table 3. reveals considerable differences depending on the marital status of the respondent. Single people, divorced and separated respondents give much higher estimates than either married or widowed interviewees. The responses on the part of the separated respondents imply a \$1.3 billion a year program, whereas those of widowed interviewees reflect a program of about half that magnitude.

The most educated respondents (beyond college level) give the most realistic estimate when we consider the actual pattern of national expenditures. But even this estimate is high: \$2.43 per person, or an annual program of about \$455 million. Table 4. gives the details in terms of educational categories.

Table 4.

PERCEPTION OF CURRENT PROGRAM COSTS
BY EDUCATION OF THE RESPONDENT

	<u>In Percent</u>		Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
No schooling	*	*	*
Grammar school	18.1	20.4	4.68
Some high school	17.2	19.8	4.96
Completed high school	15.0	20.1	5.19
Some college	20.1	13.6	4.61
College	17.7	11.5	3.88
Beyond college	37.3	10.2	2.43

*Only four respondents in all, and three failed to answer the question.

Occupational differences are actually even sharper than that. Farm laborers, service workers, industrial laborers, and clerical workers give particularly high estimates. The program level which the few farm laborers in the sample are referring to amounts to \$3.3 billion annually! Sales workers and professionals give the lowest estimates. Table 5. is a summary of the data.

Table 5.

PERCEPTIONS OF CIVIL DEFENSE COSTS PBR ANNUM
BY OCCUPATION

	<u>In Percent</u>		Median in dollars <u>per person</u>
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
Professionals	21.9	13.0	3.96
Farmers, farm managers	20.5	13.7	5.20
Managers, officials, proprietors	25.3	20.2	4.59
Clerical workers	12.5	17.1	5.23
Sales workers	18.2	9.1	3.62
Craftsmen, foremen	17.2	19.0	4.88
Operatives	14.6	23.4	4.57
Service workers	12.3	28.4	6.48
Farm laborers	0.0	42.9	17.44
Laborers	19.1	14.0	5.26

There is a tendency for people with very low incomes and very high ones to give very high estimates of annual civil defense expenditures. Table 6. documents this.

Table 6.

ESTIMATES OF ANNUAL CIVIL DEFENSE EXPENSES
BY RESPONDENT INCOME

	<u>In Percent</u>		Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
Less than \$3,000	10.5	24.7	6.82
\$3,000-\$4,999	19.7	19.8	4.61
\$5,000-\$7,499	19.1	16.6	4.46
\$7,500-\$9,999	17.8	15.0	4.41
\$10,000-\$14,999	23.3	15.0	4.00
\$15,000-\$24,999	19.6	9.8	4.10
Over \$25,000	20.0	20.0	5.62

A somewhat similar relationship links the cost estimates and class identification: people in upper and lower classes are much more prone to give very high guesses about current expenditures, whereas middle class respondents are relatively lower. (Table 7.)

Table 7.

ANNUAL CIVIL DEFENSE COST ESTIMATES
BY SOCIAL CLASS IDENTIFICATION

	<u>In Percent</u>		Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
Upper class	11.5	23.1	7.16
Middle class	20.2	16.0	4.18
Working class	16.2	19.2	3.02
Lower class	16.7	21.4	3.80

Among people who own their residence, 20.0 percent give the lowest estimate (less than \$200 million), and 14.6 percent guess at expenses in excess of \$4 billion. The percentages are just about reversed among those respondents who are renting their place of residence: 15.1 percent give a low estimate, and 23.2 percent a high one. The median dollar value is \$4.33 for owners, and \$5.51 for renters.

Two major themes seem to be involved in the variation of estimates on the part of various subgroups of our population. For one, people who are somewhat more favorably disposed to civil defense measures tend to give high estimates of current expenses than people who are a little less favorable toward civil defense in general. This theme is not documented in the present report, but is a subject of other papers based on this study. Secondly, two quite different groups of respondents also have a tendency to give higher estimates of expenditures than other respondents. The first group seems to include people who cite larger per capita amounts simply because the smaller amounts seem very small to them--particularly relative to their own standards. The second group seems to consist of people who probably do not have much of a comprehension about the total amounts involved because they are entirely unaccustomed to think in terms of millions or even billions of dollars.

Group by group, the estimates are drastically higher than what civil defense programs have been actually costing. It is clear from the data that great majorities of the population are implying programs beyond the \$1 billion yearly range; and many, about one in five, think that the government is spending in excess of \$4 billion annually. This is important to realize because these cost levels go only with the most elaborate civil defense systems thus far seriously considered by the Administration--and not, in fact, proposed for Congressional adoption as yet, if ever.

Now in part the results may be an artifact of the question. In dollars per person, it does not seem much to be investing one, or five, or even ten or more dollars per individual for the programs. Many people may not know the total population size. And even if they do, they may not convert the per capita expenditures into total expenses before answering the question: in fact, it is unlikely that any of the respondents do so.

The data imply the notion that if information about actual per capita expenditures were systematically disseminated to the public, most people would be extremely surprised how

little civil defense programs have been costing. And, of course, they would be similarly surprised to realize how little current Administration proposals amount to in per capita yearly costs.

This realization might have two, rather opposite, effects. Indeed, it is likely that both would occur. On one hand, the recognition that civil defense programs are costing much less than people think might account for further receptivity to civil defense efforts. On the other hand, the realization how little they cost compared with what people think they cost may lead to the conviction that the current programs, or even the inexpensive proposed efforts, cannot be very adequate, precisely because they are, or appear to be, so cheap.

Thus one mode of response postulated enhanced acceptability of civil defense. The other mode suggests decreased acceptability because of degraded credibility of program effectiveness.

We suggest that actually enhanced acceptance would result from an educational effort to explain the current, and future, per capita costs of civil defense. This we conclude somewhat apart from the cost estimates themselves. Rather, this seems to be the most likely consequence because the public is largely convinced that shelters do have a good degree of effectiveness, and this response occurs in no connection with either guessing at, or knowing, program costs.

In Berlo's research at Michigan State University, for example, 43 percent of the eight city respondents believed that they would have "a very good chance" of escaping radiation sickness if they were in shelters and lived "far enough away to escape the bomb blast". An additional 33 percent of the respondents thought that they would at least have "some chance", and only 6 percent believed that they would have "no chance at all".⁷

Withey has reported that 37 percent of the national respondents in his late 1961 study cited shelters in response to an open-ended probe as to what might be done to "make the attack on the United States less damaging"; an additional 24 percent of the respondents further thought that shelters would help, and 18 percent believed that they would be of some help.⁸

In our own study, the respondents were asked whether they agreed that "fallout shelters provide some chance of living through a nuclear war". Some 20.6 percent "strongly agreed" with the statement, and 69.9 percent "agreed" with it, whereas only 1.6 percent "strongly disagreed", and 7.6 percent "disagreed".⁹

These types of indirect data indicate that people are convinced of some degree of effectiveness of shelter programs apart from cost considerations. From the data presented in this section of the report, it is apparent that they also think that much more money is being spent than is actually being spent. It seems therefore that if certain beliefs in effectiveness of civil defense programs exist and are coupled with overestimates of costs, realization that some of these effectiveness levels can be achieved, or are being achieved, at a much lower cost should lead to increased, rather than degraded, acceptance.

Now if people think also that we are already spending too much, or far too much, this conclusion has to be revised. The next section of the report deals with the problem.

3. Desirable Cost Levels

People believe that the United States is spending much more on civil defense programs than is actually being spent. And, in fact, Americans believe that much more ought to be spent than they now estimate is being invested annually. Table 8. is a summary. For convenience, it includes the basic data from Table 1. as well.

Table 8.

ESTIMATES OF DESIRABLE AND CURRENT
LEVELS OF SPENDING

	<u>United States</u>		<u>Ought to be Spending</u>	
	<u>Currently Spending</u>		<u>In Percent</u>	
	<u>Total Sample</u>	<u>Excluding Don't Knows</u>	<u>Total Sample</u>	<u>Excluding Don't Knows</u>
Nothing	0.7	0.9	1.5	1.7
Less than \$1.00	13.7	17.2	2.9	3.4
\$1.00-\$5.00	27.8	35.0	15.8	18.4
\$5.00-\$10.00	14.4	18.1	13.4	15.7
\$10.00-\$25.00	8.7	11.0	13.5	15.7
\$25.00-\$50.00	6.1	7.7	7.7	9.0
Over \$50.00	8.0	10.1	10.5	12.3
Any amount necessary	XXX	XXX	20.4	23.8
Don't know	20.3	XXX	13.6	XXX
No answer	0.3	XXX	0.5	XXX
	(100.0) (1434)	(100.0) (1137)	(100.0) (1434)	(100.0) (1232)

Excluding the don't knows, 18.1 percent of the respondents believed that we are spending \$1.00 or less (including no spending). But only 5.1 percent believe that we ought to be spending this much, or this little. Similarly, 17.8 percent think that we are spending in excess of \$25.00 per person; but 21.3 percent think that we ought to be spending at least \$25.00 per person.

Furthermore, it turns out that 23.8 percent of the respondents answered that the nation ought to be spending any amount necessary although this response was not suggested to them by the interviewer at all, and was recorded only when it was spontaneously given by the subject. In fact, the question was:

"How much do you think our country should spend for each man, woman and child for Civil Defense programs? Less than a dollar a year? Less than five dollars? Ten Dollars? Twenty-five? Fifty? Or over fifty?"¹⁰

Almost one in four Americans chose to say that any necessary amount ought to be spent; one in fifty chose to say that nothing should be spent at all.

Although over 20 percent of the respondents claim that they do not know how much is currently being spent, the percentage of interviewees unwilling, or unable, to make an estimate declines to 13.6 percent when they are asked their opinion as to how much should be spent. This, of course, can be expected.

If we assume that the "any amount necessary" response is the strongest one (and thus falls potentially even beyond the "over \$50.00" answer, since presumably if the program were to cost in excess of this, the respondents would still go along with it), the median annual cost is \$20.32 per capita. The desirable yearly level thus comes to \$3.8 billion for the sample as a whole--this is very close indeed to expense requirements associated with the most demanding civil defense options (fallout shelters for all, along with blast shelters in likely target areas; fallout shelters for all, along with antiballistic missile defense).

This median is 6.8 times that of the \$300 million annually implied in the option which the Administration proposed in 1963; and it is about 5 times the amount entailed in the development of a full fallout shelter program for the whole population. Indeed, the total cost (estimated at \$2.1 billion) of the full fallout shelter program is less than what Americans think ought to be spent annually.

We do not think that these estimates are exceptionally high in some very crucial sense. For the public is merely saying that we might spend about 4 percent of the nation's annual budget on providing protection for the population in the event of a thermonuclear war. The estimates are very high considering the patterns of fund allocation in the past; and also, considering the specific proposals which the Administration has been putting forth for the Congress to act upon.

The estimates are also very high considering the impressions about civil defense programs which one gets from the scrutiny of newspaper and magazine literature, from which one might easily derive the notion that the programs are opposed by just about everyone. Nothing seems further removed from fact, a point which other studies and our other reports document all too well.

Table 9. gives the data for respondents who think that the program level ought to be less than \$200 million annually (\$1.00 or nothing per capita), and those who believe it ought to be over \$4 billion (\$25.00 or more per capita, but excluding those who say "any amount necessary"). There is a tendency for people from large urbanized complexes to support more expensive programs.

Table 9.

DESIRABLE LEVEL OF ANNUAL CIVIL DEFENSE EXPENSES BY SAMPLE UNIT SIZE

	<u>In Percent</u>		Median* in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	
Largest metropolitan (2,000,000 and over)	6.3	28.3	23.10
Large metropolitan	4.9	20.3	22.26
County with large city of 10,000 and over	4.5	18.1	17.50
County with no city over 10,000	5.4	18.1	17.05

*Including "any amount necessary" as the highest response category.

Important regional variations remain. But their characteristics are somewhat different from those reported in Table 2. Although respondents in East South Central states yielded one of the lowest estimates of current expenditures, they are by far highest when it comes to saying how much ought to be spent. On the other hand, respondents from New England states were lowest in estimating current expenses, and they are also low--compared with other regions--in what they think should be spent. Interviewees from Mountain states were high in evaluating current expenses; they produce the lowest estimate of how much should be spent--but, of course, even this low estimate is almost double of what they say the nation is spending.

Table 10.
PATTERN OF REGIONAL DIFFERENCES IN DESIRABLE
CIVIL DEFENSE COSTS

	<u>In Percent</u>		Median in dollars per person	Change in median in dollars per person*
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>		
New England	6.0	22.0	13.75	+10.06
Middle Atlantic	4.9	25.4	14.58	+10.12
East North Central	6.6	17.1	14.28	+ 9.67
West North Central	2.9	25.0	19.60	+13.40
South Atlantic	4.2	18.1	20.83	+16.37
East South Central	0.0	21.3	over 50**	++ **
West South Central	3.1	15.3	20.62	+16.61
Mountain	2.6	17.9	13.40	+ 6.40
Pacific	10.2	27.6	21.82	+17.35

*Median in this table minus median in Table 2.

**Cannot be estimated numerically. \$50 and over is an open-ended category.

In each region, the percentages of respondents who consider the lowest expense level desirable are substantially smaller than the percentages of respondents who place current costs at \$200 million or less. And similarly, the percentages in the \$4 billion and over program level are increased with the exception of the East North Central region, but this is mainly accounted for by the 23.7 percent of the respondents who say that any amount necessary ought to be spent. Along these lines, 39.3 percent of the respondents in East South Central states give this answer; 27.7 percent in South Atlantic, and 30.6 percent in West South Central. At the other pole, only 10.3 percent of the respondents from the nation's Mountain region believe that "any amount" ought to be spent; and 16.0 percent of New Englanders give this response.

Now throughout the sample the increases in desirable costs over current estimates (which, too, are well beyond actual expenditures) are quite sharp. Yet, within this overall finding an underlying pattern is noticeable:

1. On balance, in New England, Middle Atlantic, and East North Central regions, people believe that less is being done than the nation as a whole does, and also believe that less ought to be done than do others. This pattern is least conducive to acceptance of either current or prospective programs.
2. In the Mountain region, respondents think generally that a lot is being done and not much more is needed.
3. In the West North Central region, the interviewees mirror the notion that perhaps plenty is being done, but much more ought to be done.
4. In the nation's South (East South Central, West South Central, South Atlantic) and in the Pacific area, the respondents believe that relatively less is being done and much more ought to be undertaken.

Again, it is essential to underscore that these are only distinctions within an underlying tendency for all Americans to believe that more needs doing, and indeed, much more. But the regional clustering is the same as that which we reported in conjunction with public responses to the NEAR system. We shall have an occasion to consider it in other reports from this national study.¹¹

Negro respondents thought that more is being spent than did white interviewees. They also think that more ought to be spent, and the difference between them and the white respondents is actually increased. Table 11/A. provides the data.

Table 11.
DESIRABLE PROGRAM LEVELS BY COLOR
AND BY SEX

	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any Amount in Necessary</u>	<u>Median per person</u>	<u>Change in median in dollars per person</u>
A. Whites	5.7	20.3	23.3	18.73	+14.17
Negroes	0.7	28.9	28.1	26.50	+20.80
B. Men	7.3	21.4	20.4	17.50	+13.38
Women	3.2	21.1	26.7	22.87	+17.63

The same pattern is observable when it comes to sex differences. Women believed that more was being spent, and they also would like to see more invested in civil defense programs than would men. Again, the difference between men and women is greater for the desirable than current expense estimates. Although this is so, the percentage of men who favor the lowest expense level (below \$200 million) drops much sharper than it does among women, and in their estimates as to the desirability of programs in excess of \$4 billion annually, the two groups do not differ as they did in guessing at current expenditures.

The percentage of people who believe that any necessary amount ought to be spent increases with age. In their twenties, 17.4 percent of the respondents give this answer; interviewees who are between 30-39 years of age chose to respond in this manner in 21.8 percent of the instances; subjects in their forties, in 25.3 percent of the cases; in their fifties, in 28.4 percent cases; and the respondents over 60 years of age give the answer in 31.5 percent of the instances. But the median

expenditures that are desirable do not correlate with age in any systematic manner. This then means quite probably that although older people are more often willing to say that any necessary amount should be spent, they do not think that this needed amount might be in excess of \$50.00, or perhaps not even over \$25.00. Indeed, the percentages of respondents estimating the desired annual expense beyond the \$4 billion level are the greater the younger the respondent.

Among widowed respondents, 42.9 percent thought that the government ought to be spending "any amount necessary", but only 6.3 percent placed the desired program level at beyond \$50.00 per capita, and 9.5 percent between \$25.00 and \$50.00. Nonetheless, the results reveal extremely sharp differences depending on the marital status of the respondents. Married and divorced people come up with the lowest program levels (although these, as for all sub-groups, are still very high), whereas widowed and separated respondents produce exceptionally high estimates. In the former group, these are affected by the numbers of people who would want to spend any needed amount; in the latter group, the high median is primarily affected by the large percentage of people who would want to see the nation spend at the rate of over \$4 billion a year. The data are given in Table 12.

Table 12.

DESIRED LEVELS OF CIVIL DEFENSE SPENDING
BY RESPONDENT MARITAL STATUS

	<u>In Percent</u>			Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any amount necessary</u>	
Married	5.5	20.7	22.7	16.66
Single	4.4	24.5	24.6	24.32
Divorced	2.4	21.9	22.0	17.50
Separated	6.1	33.3	21.2	37.10
Widowed	1.6	15.8	42.9	48.15

With increasing educational level, the percentage of respondents who advocate spending "any amount necessary" declines. The two most educated groups of respondents, those with college education or beyond, produce by far the lowest medians. Of all respondent groups, they yield the highest percentage of people who maintain that less than \$200 million ought to be spent on a yearly basis. (Table 13.)

Table 13.

EDUCATIONAL LEVEL AND DESIRED ANNUAL
CIVIL DEFENSE EXPENDITURES

	<u>In Percent</u>			Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any amount necessary</u>	
No schooling	*	*	*	*
Grammar school	5.2	16.6	28.3	20.59
Some high school	3.2	27.5	23.6	26.23
Completed high school	4.7	22.0	23.3	20.92
Some college	1.2	21.0	22.8	20.22
College	11.0	16.0	22.0	12.14
Beyond college	18.6	16.7	13.0	5.00

In the most educated group (beyond college), the median implies a program within the \$1 billion range; and college educated respondents speak of a program that would cost less than \$2.5 billion annually.

The data by occupational categories of the respondents are provided in Table 14. On the whole, those occupational groups which thought the current program level was rather high give also very high estimates of desired program levels. Professionals and sal. workers who gave low estimates of present annual expenditures give lower figures as desired costs as well.

Table 14.

DESIRED LEVEL OF CIVIL DEFENSE EXPENSES
AND OCCUPATIONAL BACKGROUND

	<u>In Percent</u>			Median <u>in dollars per person</u>
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any amount necessary</u>	
Professionals	10.0	16.5	16.5	12.18
Farmers, farm managers	6.3	16.3	13.8	12.32
Managers, officials, proprietors	5.5	18.3	27.7	18.91
Clerical workers	3.1	24.0	20.8	20.10
Sales workers	7.0	22.6	18.3	16.20
Craftsmen, foremen	2.4	23.5	25.1	23.36
Operatives	4.5	26.2	27.7	36.25
Service workers	2.2	23.1	33.0	over 50.00
Farm laborers	0.0	42.9	14.3	29.15
Laborers	6.4	17.0	25.8	18.98

Now from Table 6. we know that both people with lowest and highest incomes estimated current expenses as substantially greater than did other income groups. When it comes to the assessment of desirable annual cost levels, the pattern changes. Respondents with the highest incomes give by far the lowest estimate; and people with incomes of over \$15,000 also give a very low estimate. On the other hand, people with very low incomes (less than \$3,000) give the highest figures as the desirable yearly cost for civil defense. On the whole (the pattern is interrupted only in the \$10,000-\$14,999 bracket), the higher the income the lower the amount of money that it seems desirable to invest in civil defense programs. In the highest income group, the respondents thought that the nation is already spending about \$1.0 billion annually; and they say that about \$1.3 billion ought to be spent. This is the smallest increment in desired, over currently estimated, cost of any group in the sample. In the next highest income group (over \$15,000 but less than \$25,000), the desired program level comes to \$1.7 billion, while the same respondents guess at current expenses of about three-quarter billion dollars.

Table 15.

WANTED PROGRAM LEVEL AND RESPONDENT
INCOME

	<u>In Percent</u>			Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any amount necessary</u>	
Less than \$3,000	3.2	19.8	30.5	26.17
\$3,000-\$4,999	2.9	20.3	26.2	21.44
\$5,000-\$7,499	3.9	22.1	21.8	19.15
\$7,500-\$9,999	6.5	19.0	24.0	17.66
\$10,000-\$14,999	4.8	27.2	18.4	21.12
\$15,000-\$24,999	16.1	14.2	25.0	9.16
Over \$25,000	13.3	20.0	0.0	6.87

Class differences parallel the results pertaining to income. In this regard, upper class respondents believed (Table 7.) that the nation is already spending more than did any of the other groups. When it comes to desired levels of expenses, upper class and middle class people give lower estimates, while lower class people give an exceptionally high figure as the appropriate annual expense level.

Table 16.

CLASS IDENTIFICATION AND DESIRED LEVEL
OF CIVIL DEFENSE SPENDING

	<u>In Percent</u>			Median in dollars per person
	<u>Less than \$200 Million</u>	<u>More than \$4 Billion</u>	<u>Any amount necessary</u>	
Upper class	11.5	19.2	26.9	17.50
Middle class	6.2	21.0	21.0	17.16
Working class	3.1	21.3	25.3	22.09
Lower class	7.3	33.0	28.6	over \$0.00

People who are renting their place of residence gave a higher estimate of current spending than people who own their residence. The difference between the two groups becomes sharpened when desired cost levels are taken into account. People who are renting yield a median of \$25.90--and 28.2 percent of them fall into the \$4 billion program group. Owners of their residence produce a median of \$17.54, with 17.3 percent exceeding \$4 billion as the appropriate spending level.

The per capita expenditures perceived by the respondents at the present time are substantially lower than what Americans say ought to be spent for civil defense annually. This holds in all segments of the population. Of course, this does not mean that there are no people at all who think that the nation ought to spend less than it is already spending. Table 17 gives a summary of the data from this vantage point. It shows that 5.5 percent of the total sample believe that we are already spending more than should be invested in civil defense activities.

Table 17.
SUMMARY OF RELATION BETWEEN ESTIMATES OF
CURRENT SPENDING AND DESIRED LEVEL

	<u>Percent</u>
Ought to be spending more than is being spent now	48.2
Ought to be spending just about what is being spent now	20.9
Ought to be spending less than is being spent now	5.5
Don't know either what is being spent now, or ought to be spent	25.4
	(100.0)
	(1434)

Among the 48.2 percent respondents who believe that more should be spent than is being spent now, 46.0 percent move to adjacent cost categories. That is to say, people who believe that we are spending less than \$1.00 tend to move predominantly into the \$1.00 to \$5.00 category.

4. Conclusions

What are some of the conclusions we can draw on the basis of the results?

First, it is obvious that the preferred level of annual spending is substantially higher than the estimated current level of spending for all population categories considered.

Second, it is therefore also much higher than the actual civil defense spending.

Third, the most expensive civil defense options assume a required annual expenditure of approximately \$4 billion; with a population of about 187.3 million around the time of our study, this means per capita spending of about \$21. It is obvious that many population groups produce a median per capita figure in excess of \$21--and thus might be receptive to programs at even the presently highest level considered. But many groups fall also below \$21 per person, and these might well constitute opposition to civil defense efforts of the \$4 billion per annum variety.

Fourth, no group as a group comes up with preferred cost levels lower than those implicit in the 1963 Administration proposal (incorporated in H.R. 8200); nor in the full fall-out shelter option.

Fifth, there are, of course, some people who think that the desired level of spending should not go beyond about \$200 million a year. In the total sample, there are only 4.4 percent of such people, and they constitute a fairly well identifiable segment of the population. To the extent to which patterning exists, it can be said that the respondents in this group (which might be in opposition even to the present option, not to speak of the higher ones) are disproportionately people with college degrees or educational attainments beyond college; they are professionals; and people with very high incomes (beyond \$15,000) and with upper class identification.

We are not sure, of course, that the results are not partially an artifact of the way people think about money. A few dollars annually per person may not seem like much; the billion or so this may come to in aggregate may loom much larger.

Yet, it is quite clear that the public believes that national civil defense spending has been much larger than, in fact, it has been. And even more: the public seems convinced in

dollars and cents that even more ought to be spent. This conclusion seems strengthened, in this instance, by the fact that the question about desired spending levels was asked immediately after the item which pertains to perceptions of current expenditures. Thus the respondents were given every opportunity to reflect on their prior answer (as to how much is being spent), and could readily have mirrored the view that the nation ought to be spending less. Precisely the reverse actually occurs.

The data do not permit us to evaluate alternative communications strategies, nor was this our objective. That is, we cannot ascertain for sure whether a strategy which emphasizes per capita spendings on civil defense rather than total annual costs or total cumulative costs would find the public more receptive. But we would be tempted to suggest that the evidence points to the relative strength of the per person appeal even though we cannot evaluate it against the alternatives.

Nor can we say at this time whether it might prove prudent to inform the public how little has been spent--since the public believes that the nation has spent substantially more than it has. This is so because we do not have evidence which would show whether perceptions of a very cheap program would not correlate with beliefs in poor program quality, and thus be in effect detrimental from the vantage point of the program.

But if a communications strategy, itself subject to testing, could both enlighten the public as to the realities of civil defense expenses and the relatively large accomplishments or potentials of the program, we would be tempted to say that the public would be both surprised and highly receptive to further program steps.

Under no circumstances, however, is it possible to construe the responses as implying that civil defense has been all too expensive. This in itself is of some importance to know.

LEVEL OF PREPAREDNESS

By Dorothy V. Brodie

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1. Introduction

Between late June and early August, 1963, we conducted a nation-wide study of attitudes toward the Cold War and civil defense. The sample design called for a probability sample of 1,500 Americans, with the National Opinion Research Center of the University of Chicago doing the field work. Altogether 1,434 interviews were completed. The discrepancy between this number and the desired number of interviews is due to the impossibility of reaching some prospective respondents even after a substantial number of call-backs.

This report deals with the level of civil defense preparedness of the civilian population in mid-1963. Before a vigorous shelter program, be it Federal, State or locally administered, is undertaken, the current level of preparedness of the population should be ascertained. In our 1963 study, we included two questions to get at this level. The respondents were asked if they and their families had a fallout shelter which they had set up themselves. In addition to this, those respondents who had no fallout shelter were asked if they were protected in any way and how they were protected in case of a nuclear attack.

By the very nature of these two questions, we have tapped two distinctly different levels of preparedness--real and perceived. That is, in answer to the first question (Do you and your family have a fallout shelter that you've set up yourselves?), we have a measure of real or actual preparedness. However, in responding to the second question (Even though you haven't set up a shelter, are you and your family protected in any way in case of a nuclear attack and, if you are, how?), the individuals who answer in the affirmative could range from those who have taken real steps toward preparedness such as purchasing two-week survival kits or reinforcing their basement walls to those people who perceive protection by the very fact that they live in a home with a basement or that because they live in a community, they assume there is some community protection.

It is the task of this report to describe those people comprising each of these groups and to explore and make explicit in the process any important implications.

For ease of analysis, the report will be divided into three sections: a description of the shelter-owners, a description of the respondents who feel they are protected even though they have no shelters and the ways in which they are protected, and any concluding remarks.

2. Shelter-Owners

Table 1. provides a national distribution relative to the total sample, excluding don't knows and no answers, to the question:

Do you and your family have a fallout shelter that you've set up yourselves?

Table 1.

PERCENT OF RESPONDENTS HAVING SHELTERS
(N=1433)*

	<u>Percent</u>
Yes	2.2
No	97.8

*Note: The sample size of 1433 excludes don't knows and no answers.

It is clear from this table that about one out of every fifty Americans has a private fallout shelter. The 2.2 percent finding of this study is comparable to reported findings of other studies on shelter-owners in the United States.¹

Who are the people that make up this 2.2 percent of our population? By what can we characterize them? An attempt was made to place these individuals somewhere in the social structure by focusing on certain characteristics such as size of residence (urban versus rural), geographic location, race, age, marital status, political party affiliation, religion, education, occupation, income, social class, military experience, combat experience, number in household, number of children, and several other attributes.

Tables on each of these variables can be found in the summary table immediately following this section.

Based on this study, it is, of course, difficult to say anything conclusive about those people in our population who are shelter-owners. Examination of the tables points up the fact that although there are

¹ Also in 1963, Columbia University conducted a nation-wide study on and reported that two percent of the population were shelter-owners.

In 1961, Michigan State University reported that shelter-owners comprised 1.4 percent of the population in eight major cities. Since this was not a nation-wide study, the discrepancy between this figure and the one reported in this paper can be explained by the fact that city dwellers do not, on the average, build shelters. See David K. Berlo "The Fallout Protection Booklet: (II) A Comparison among Four Groups of Differing Levels of Interest in Shelter Construction", Department of Communication, College of Communication Arts, Michigan State University, East Lansing, Michigan, April, 1963.

some differences which exist among these people on certain characteristics, we are limited in the kinds and extent of conclusions we may draw due to the extremely small number of people involved (2.2 percent of our sample of 1434 or 31 respondents).

Because of this limitation, a difference may even be statistically significant but under close examination, we may not want to put much reliance on our finding. We must, therefore, keep this in mind when we are examining the tables in the summary table.

Generally, no sharp differences exist in any of the descriptive characteristics used in the analysis of these people. However, a few of the variables point up some differences which should be noted at this time. So that the reader may follow along in this discussion with ease, those portions of the summary table containing the variables under discussion will be reproduced below.

Table 2.

LEVEL OF EDUCATION OF SHELTER-OWNERS

	<u>Percent Having Shelters</u>	<u>N</u>
Grammar school	2.3	307
Some high school	1.5	327
Completed high school	2.5	432
Some college	2.1	191
Completed college and/or some schooling past college*	2.9	171

*Note: Two categories, college graduate and higher than college, were combined into one.

The highest percentage of shelter-owners occurs in the college graduate group. (Table 2.) 2.9 percent of college graduates and those people who have taken courses beyond the bachelor's degree have their own private fallout shelters. But the differences by educational level are quite small.

There is a plausible explanation for the greater number of fallout shelters among the more educated. The college-trained individuals are generally, more affluent than those who are less educated and could, thus, afford to construct their own shelter with greater ease rather than having to rely on the community or the Federal government to supply protection.

The data on incomes show that such a tendency exists. (Table 3) People with more money have more shelters. Among all income levels, people with yearly earnings of \$10,000 and over have a greater percentage of fallout shelters than people of any other income group (2.9 percent).

Table 3.
INCOME LEVELS OF SHELTER-OWNERS

	<u>Percent With Shelters</u>	<u>N</u>
\$5,000 and under	2.1	514
\$5,000 to \$7,499	2.0	407
\$7,500 to \$9,999	2.6	228
\$10,000 and over*	2.9	241

*Note: Three categories, \$10,000 to \$14,999, \$15,000 to \$24,999 and \$25,000 and over, were combined into one.

Another variable, which is closely related to education, is occupation, reported in Table 4. below.

Table 4.
OCCUPATIONS OF SHELTER-OWNERS

	<u>Percent Having Shelters</u>	<u>N</u>
Professional	4.2	191
Farmers and farm managers	1.1	92
Managers, officials and proprietors	.6	178
Clerical	.9	106
Sales	1.3	78
Craftsmen, foremen, and kindred workers	2.5	281
Operatives and kindred workers	2.5	236
Service	2.7	111
Farm laborers and foremen	0.0	12
Laborers	2.7	148

The members of the occupational group termed "professional" (actors, artists, chemists, professors, engineers, etc.) have more private shelters than any other occupational category (4.2 percent). That is, approximately one out of every twenty-five professional people claim to have their own shelter.

The same explanation offered for the difference in shelter-owners when compared on educational level can be given here. If we consider money to be an important factor in having one's own fallout shelter, then the people in the professional category would be among the more likely owners of shelters since they are, on the average, a wealthier group. This relates very closely to educational level, of course, for professionals are, usually, college trained.

There are variations in some of the other variables which we would expect. One such difference occurs when we compare people who have had combat experience with those people who have had no fighting experience. It is reasonable to expect that people who have experienced the effects of a war, and its threat to human survivability, would be more inclined to prepare themselves for such an event than those individuals who have not been exposed to such circumstances. As anticipated, the people having combat experience have more private shelters than do those who have had no such experience. In fact, the percentage of people with shelters who have combat experience is double that of respondents without comparable experiences--3 percent as opposed to 1.5 percent.

Another such difference exists between home owners and those who rent. Of all persons owning their own homes, 2.6 percent have private fallout shelters. 1.5 percent of people renting their homes have fallout shelters. A very simple explanation of this difference is that people renting their homes are not as willing to invest money in the property which is not their own by building a fallout shelter, whereas, if they own the home, any money that is invested is an improvement of their property which could be realized in the selling price.

If we wish to make a statement of inference about shelter-owners in the population, all we could say is that although some differences do occur in the characteristics of these people, we are limited in drawing definite conclusions from these differences because of the small number of people involved.

The following tables describe the 2.2 percent of the sample who have fallout shelters. In all cases, the number given excludes don't knows and no answers.

Summary Table

	<u>Percent With Shelters</u>	<u>N</u>
A. Size of Residence:		
Largest metropolitan areas (2,000,000 and over)	0.9	320
Large metropolitan	2.8	571
Non-metropolitan areas with city of 10,000 or over	2.7	226
Non-metropolitan areas with no city of 10,000	2.2	316
<hr/>		
B. Geographical Location:		
New England	5.1	59
Middle Atlantic	1.6	258
South Atlantic	2.7	184
North Central	2.4	425
South Central	1.9	264
Mountain	0.0	44
Pacific	2.5	199
<hr/>		
C. Race:		
White	2.1	1259
Negro	2.4	165
<hr/>		
D. Sex:		
Male	2.6	653
Female	1.9	981
<hr/>		

Summary Table (continued)

	<u>Percent With Shelters</u>	<u>N</u>
E. Age:		
20-29	2.5	281
30-39	2.7	373
40-49	2.3	352
50-59	1.7	241
60 and over	1.8	175
<hr/>		
F. Marital Status:		
Single--never married	3.2	125
Married	2.1	1133
Divorced	2.0	51
Widowed	3.6	84
Separated	0.0	38
<hr/>		
G. Political Party:		
Republican	2.7	446
Democrat	2.4	747
Other	0.0	69
None	0.7	149
<hr/>		
H. Religion:		
Protestant	2.4	983
Roman Catholic	2.3	350
Jewish	0.0	79
<hr/>		

Summary Table (continued)

	<u>Percent With Shelters</u>	<u>N</u>
I. Level of Education:		
Grammar School	2.3	307
Some High School (9-11 years)	1.5	327
Completed High School (12 years)	2.5	432
Some College	2.1	191
Completed College and Higher than College	2.9	171
J. Occupation:		
Professional	4.2	191
Farmers and farm managers	1.1	92
Managers, officials and proprietors	0.6	178
Clerical	0.9	106
Sales	1.3	78
Craftsmen, foremen and kindred workers	2.5	281
Operatives and kindred workers	2.5	236
Service	2.7	111
Farm laborers and foremen	0.0	12
Laborers	2.7	148
K. Income:		
\$5,000 and under	2.1	514
\$5,000 to \$7,499	2.0	407
\$7,500 to \$9,999	2.6	228
\$10,000 to \$14,999	2.4	165
\$15,000 and over*	4.0	76

Summary Table (continued)

	<u>Percent With Shelters</u>	<u>N</u>
L. Own or Rent Home:		
Own	2.6	909
Rent	1.5	520
M. Social Class:		
Upper	0.0	32
Middle	2.4	636
Working	2.1	678
Lower	0.0	56
N. Military Experience:		
Yes	2.1	746
No	2.4	588
O. Combat Experience:		
Yes	3.0	270
No	1.5	456
P. Number in Household:		
1	3.4	116
2	1.4	356
3	1.9	260
4	3.2	308
5	1.5	196
6 or more	2.5	196

Summary Table (continued)

	<u>Percent With Shelters</u>	<u>N</u>
Q. Number of Children less than 13 years old:		
0	2.3	738
1	2.3	264
2	2.8	214
3	0.9	107
4 or more	1.9	106
<hr/>		
R. Number of Children 13-21 years old:		
0	1.9	942
1	3.4	266
2	1.4	146
3	8.1	37
4 or more	0.0	20
<hr/>		
S. Preference as to Types of Shelters:		
Private	2.1	583
Community	.6	709
No Preference	.3	93
Neither: Against Shelters	---	31
Other	.2	9

*Note: Two categories, \$15,000 to \$24,999 and \$25,000 and over, were combined in one.

3. Protected Non-Shelter Owners

Table 5. provides a national distribution relative to the total sample, excluding shelter-owners and don't knows and no answers, to the question:

Even though you haven't set up a shelter, are you and your family protected in any way in case of a nuclear attack?

Table 5.

LEVEL OF PROTECTION IN THE POPULATION
(N=1351)²

	<u>Percent</u>
Some Protection	24.9
No Protection	75.1

It is clear from Table 5. that about one out of every four Americans say they are protected in some way from a nuclear attack. This is to say, that even though very few citizens have built their own fallout shelter, a substantial proportion of the population (24.9 percent) claims some kind of protection.

What type of protection do these people have? When asked this in an open-ended probe the respondents gave answers which cluster on three main categories. These are presented in Table 6.

Table 6.

TYPES OF PROTECTION AMONG "PROTECTED" PEOPLE

	<u>Percent</u>
Impromptu shelter in the house	76.0
Community shelter	22.8
Assumed community shelter	1.2 (329)

Sharp differences exist in the type of protection the respondents say they have. Most people say they are protected from nuclear attack by an impromptu shelter in their home (76 percent) while only 22.8 percent state their protection as being a community shelter and 1.2 percent gave their protection as an assumed community shelter even though they were not sure one existed.

² It is to be understood that the number given in all subsequent tables excludes don't knows and no answers.

At this point, we feel it is necessary to return to a statement made in the introduction of this report. In this measure, we are getting a range of responses which can be grouped into two levels of preparedness--real and perceived. That is, some people may actually have taken definite steps toward preparedness by stocking and reinforcing their basement. Contrary to this type of preparedness is the perceived protection--those people who, by the very fact that they live in a home with a basement, feel that they are protected. Both these types of preparedness--real and perceived--are included in the first response to what type of protection--impromptu shelter in the home.

The 22.8 percent (who constitute 5.2 percent of the total sample) who stated their protection as being a community shelter is substantial in size. However, we should mention that no check was made to see if there really was a community shelter available to each of these respondents.

The percentage of protection claims was rather uniform regardless of the size of the community. This is pointed out in Table 7.

Table 7.

PERCENTAGE OF PROTECTION ACCORDING TO COMMUNITY SIZE

	<u>Percent</u>	<u>N</u>
Metropolitan area (2,000,000 and over)	22.2	306
Other metropolitan areas	25.2	536
Non-metropolitan areas with city of 10,000	26.9	212
Non-metropolitan areas with no city of 10,000	25.9	297

The non-metropolitan area with a city of 10,000 or more has more protected people than the other areas (26.9 percent) while the largest metropolitan areas such as New York City and Chicago have the lowest amount of protected people--22.2 percent. The other two types of communities--metropolitan areas under 2,000,000 and non-metropolitan areas with no city of 10,000--differ only slightly.

Table 8. presents the types of protection according to size of community.

Table 8.

TYPE OF PROTECTION ACCORDING TO SIZE OF COMMUNITY

	<u>Percent House Impromptu Shelter</u>	<u>Percent Community Shelter</u>	<u>N</u>
Metropolitan area (2,000,000 or over)	72.7	25.8	66
Other metropolitan areas	77.3	20.5	132
Non-metropolitan area with city of 10,000 or over	75.0	25.0	56
Non-metropolitan area with no city of 10,000	77.3	22.7	75

Among people who have some protection, other metropolitan areas and non-metropolitan areas with no city of 10,000 have higher percentages of people (77.3 in each case) who are protected by impromptu home shelters than the largest metropolitan areas and the non-metropolitan areas with a city of 10,000 or more (72.7 and 75 percent respectively). Conversely, the largest metropolitan areas and the non-metropolitan areas with a city of 10,000 or more have the highest percentages of community sheltered-protected people (25.8 and 25 percent). Very few respondents stated their protection as being an assumed community shelter. Of those who did, however, the greatest proportion resided in other metropolitan areas (2.3 percent).

When we consider where these protected people reside in the United States, we find that substantial differences do exist. (Table 9) New England, the West North Central states, and the Mountain states have more protected residents than other geographical locations in this country. The South Atlantic states have fewer protected people than any of the other areas. 40 percent of the population in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont; 32 percent of the population in the states of Iowa, Kansas, and Minnesota; and 34.9 percent of the population in Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming--all of these percentages are substantially higher than the national average of 24.9 percent (see Table 5). These contrast with the 16 percent of the population in the South Atlantic states (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, and West Virginia).

Table 9.

DISTRIBUTION OF PROTECTION ACCORDING TO GEOGRAPHIC LOCATION

	<u>Percent</u>	<u>N</u>
New England	40.0	55
Middle Atlantic	28.1	249
East North Central	27.0	241
West North Central	32.0	153
South Atlantic	16.0	175
East South Central	20.0	70
West South Central	17.2	180
Mountain States	34.9	43
Pacific	23.2	185

In examining the types of protection according to geographical location, we find similar differences. Table 10. presents this data.

Table 10.

TYPES OF PROTECTION BY GEOGRAPHICAL LOCATION

	<u>Percent</u> <u>House Impromptu Shelter</u>	<u>Percent</u> <u>Community Shelter</u>	<u>N</u>
New England	90.9	9.1	22
Middle Atlantic	71.0	29.0	69
East North Central	84.4	15.6	64
West North Central	72.9	27.1	48
South Atlantic	70.4	29.6	27
East South Central	84.6	15.4	13
West South Central	64.5	29.0	31
Mountain	92.9	7.1	14
Pacific	70.7	24.4	41

Once again, the New England states and the Mountain states score high when we consider protection by an impromptu shelter in homes--90.9 percent of the population in the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; and 92.9 percent of the people residing in Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. These percentages are well above the national average of 76 percent (see Table 6.) as are the percentages found in the East North Central and the East South Central states. The West South Central states (Arkansas, Louisiana, Oklahoma, and Texas) have the lowest percentage of shelter-impromptu protection--64.5 percent.

Conversely, when we consider protection by community shelter, New England and the Mountain states have the lowest percentages (9.1 percent in New England and 7.1 percent in the Mountain states). Among the respondents with some protection, more people in the Middle Atlantic, South Atlantic, and West South Central states say they are protected by community shelters (29 percent, 29.6 percent and 29 percent respectively). In only two geographical areas, the West South Central (6.5 percent) and Pacific states (4.9 percent) did people state their protection as an assumed community shelter.

There are sharp racial differences among people who say they are protected in some way from a nuclear attack. The percentage of whites who claim some type of protection is more than double the proportion of Negroes. (27.1 percent as opposed to 10.1 percent). This difference may be accounted for, as usual, by the sharp economic and social differences between the two groups in our society.

Using the same characteristic, we find even more distinct differences when we consider the types of protection. 77.1 percent of the protected whites state they are protected by an impromptu shelter, 21.9 percent claim protection by community shelter and only 1 percent fall into the assumed community shelter category. Responses of the Negroes are quite different--50 percent are protected by an impromptu home shelter, 42.9 percent by a community shelter and 7.1 percent assume a community shelter.

One obvious conclusion can be drawn. The low economic standing of the Negro results in a lower home-ownership figure, 3.7 percent, as compared to the whites, 67.3 percent (see Table 11 below) and, thus, necessitates a greater reliance on the community for protection of all types, including protection from nuclear attack.

Table 11.

HOME OWNERSHIP ACCORDING TO RACE

	<u>Percent Own</u>	<u>Percent Rent</u>	<u>N</u>
White	67.3	32.7	1255
Negro	37.0	63.0	165

More men than women say they are protected in case of a nuclear attack-- 27.5 percent of the males and 22.8 percent of the females. When the types of protection are characterized by sex, we find a greater percentage (77.2) of the women who state their protection as an impromptu home shelter than men (74.9). But, more men claim community shelters as their protection than females (25.1 percent versus 20.4 percent). This can be explained by the fact that men are, due to the fact that they work in office buildings away from home, more aware of community or public shelters. Conversely, women, who generally spend most time in the home, claim more protection with an impromptu shelter in the home.

Table 12. records the percentage of protection distributed according to age.

Table 12.

PERCENT PROTECTED RELATIVE TO AGE

	<u>Percent</u>	<u>N</u>
20-29	28.0	268
30-39	24.6	354
40-49	27.7	329
50 and over*	21.1	390

*Note: Five categories; 50 to 59, 60 to 69, 70 to 79, 80 to 89, and 90 to 99, were combined into one.

It is clear from this table that more people between the ages of 20 and 30 are protected than in any other age group (28 percent). The least amount of protection shows up in the 50 and over age group (21.1 percent), not considering the 10-19 age group (which is not shown in Table 12.) due to the small number of people involved and, also, due to the fact that we would not expect a significant finding in this group.

Although attitudes toward civil defense generally correlate with age (in that younger people consistently appear to be more favorable than older people and, in this case, might be expected to be more protected since they are more receptive), no clear pattern emerges when it comes to the question of protection. In fact, more people falling between the ages of 40 and 49 claim some protection than respondents between the ages of 30 and 39 (27.7 percent and 24.6 percent respectively).

Turning to the different types of protection, we can see from Table 13 that there is a direct correlation between impromptu shelters in the home and age. That is, as age increases, there is a corresponding increase in the percentage of people who claim they are protected in this way. Starting with the 20-29 age group with 61.6 percent claiming protection by impromptu home shelters, the figures increase up to 81.7 percent of those people 50 years of age and older stating the same type of protection. Conversely, we find an inverse correlation between protection by community shelters and age. With each increase in age, there is a corresponding decrease in the percentage of people who say they are protected by community shelters. 35.6 percent of the people 20 to 29 years of age, well above the national figure (22.8 percent), state community shelters as their protection with each subsequent age group experiencing a decrease finally settling at 17.1 percent of those people in the 50 and over age group.

Table 13
TYPES OF PROTECTION RELATIVE TO AGE

	<u>Percent Home Impromptu Shelter</u>	<u>Percent Community Shelter</u>	<u>N</u>
20-29	61.6	35.6	73
30-39	77.6	22.4	85
40-49	80.7	18.2	88
50 and over*	81.7	17.1	82

*Note: Five categories; 50 to 59, 60 to 69, 70 to 79, 80 to 89, and 90 to 99, were combined into one.

Table 14. provides a distribution of those individuals who are protected with respect to their marital status.

Table 14.

PERCENTAGE OF PROTECTION RELATIVE TO MARITAL STATUS

	<u>Percent</u>	<u>N</u>
Single--never married	21.4	117
Married	27.1	1074
Divorced	15.2	46
Widowed	15.8	76
Separated	5.6	36

One anticipated difference shows up in our figures. More protection exists among people who are married than any other classification of marital status. 27.1 percent of all married respondents claim to have protection as compared to 21.4 percent of single people, 15.2 percent of those divorced, 15.8 percent of those widowed and 5.6 percent of people who are separated. These differences are to be expected. Persons who are married have a high home-ownership rate (67.1 percent of married people own homes) and would, therefore, be more likely to have an impromptu shelter in their basement. If we now look at the types of protection each of these marital groups claims to have, this fact becomes most apparent.

Table 15.

TYPES OF PROTECTION BY MARITAL STATUS

	<u>Percent</u> Home Impromptu Shelter	<u>Percent</u> Community Shelter	<u>N</u>
Single--never married	60.0	40.0	25
Married	79.3	20.0	285

Due to the small number involved, data on the divorced, separated, and widowed people were omitted from Table 15. However, we shall make note of these groups in our discussion.

More married people say they are protected by an impromptu shelter in the home (79.3 percent). The respondents who are widowed also have a high percentage of home protection. But, when we consider the fact that these are, undoubtedly, older people who own their own home, the 63.6 percent home protection is not unrealistic.

Looking at the second type of protection--community shelter--we find that individuals who are divorced state this as their protection to a greater degree than the others. (57.1 percent). People who have never married, also, have a higher percentage of protection by community shelters than married, widowed, and separated individuals. (40 percent as opposed to 20 percent, 36.4 percent, and 0 percent respectively). Once again, the number involved in the divorced, widowed, and separated categories is quite small.

Using political party affiliation to examine the protected respondent, we find no differences which are significant enough to justify discussion. The percentages of people who said they were protected in each of the political classifications--Republican, Democrat, other, and no political party--were consistently uniform. Similarly, the percentages of people protected by impromptu and community shelters were consistent despite political differences.

Table 16. provides a distribution of people claiming protection with respect to religious faith. More people (32.2 percent, which is 7.3 percentage points above the national distribution of 24.9 percent given in Table 5.) of the Roman Catholic faith say they are protected from a nuclear attack than people of the other religious faiths. (22.3 percent of the Protestants and 28.2 percent of the Jews.) We shall discuss only three religious types--Protestant, Roman Catholic, and Jewish--due to the small number of people who mentioned other types of religious affiliation.

Much less difference exists between religious faiths when we consider the types of protection. However, the data are presented in Table 17 so that one point can be discussed. Keeping in mind, once again, the small number involved, we find a substantial difference between the types of protection cited by the Jews and those cited by the Protestants and Roman Catholics. The latter two are quite similar; but, more Jews claim community shelters as their protection (45.5 percent) than people of any other religious faith, and less Jews rely on impromptu shelters in their homes (54.5 percent) than people of other religions.

Table 16.

DISTRIBUTION OF PEOPLE WHO SAY THEY ARE
PROTECTED ACCORDING TO RELIGION

	<u>Percent</u>	<u>N</u>
Protestant	22.3	922
Roman Catholic	32.2	332
Jewish	28.2	39

Table 17.

TYPES OF PROTECTION BY RELIGION

	<u>Percent</u> <u>Home Impromptu Shelter</u>	<u>Percent</u> <u>Community Shelter</u>	<u>N</u>
Protestant	74.4	24.1	199
Roman Catholic	79.4	19.6	107
Jewish	54.5	45.5	11

As the amount of education increases, the number of people claiming protection increases, also. The highest percentage of protection is found in the college graduate group (34.7 percent). The lowest proportion of people saying they are protected occurs in the grammar school group (15.8 percent). Table 18. documents this.

Table 18.

PERCENT OF PROTECTION ACCORDING TO EDUCATION

	<u>Percent</u>	<u>N</u>
Grammar school	15.8	291
Some high school	24.4	312
Completed high school	25.8	403
College, incomplete	30.7	179
College graduate and some schooling higher than college*	34.7	161

*Note: Two categories, college graduate and higher than college, were combined into one.

No clear pattern of types of protection emerges when we examine the types of protection with respect to education. The data are presented in Table 19.

Table 19.

TYPES OF PROTECTION BY EDUCATION

	<u>Percent</u> <u>Home Impromptu</u> <u>Shelter</u>	<u>Percent</u> <u>Community</u> <u>Shelter</u>	<u>N</u>
Grammar school	79.5	20.5	44
Some high school	75.0	25.0	72
Completed high school	79.6	18.4	103
College, incomplete	65.5	30.9	55
College graduate and some schooling higher than college*	78.2	21.8	55

*Note: Two categories, college graduate and higher than college, were combined into one.

More professionals, craftsmen and foremen, and managers claim they are protected in case of a nuclear attack than other types of workers. Table 20 presents this data. 30.3 percent of the professional occupational group, 29.6 percent of the craftsmen, foremen group and 29.3 percent of the managers, proprietors, and officials group state that they are protected--all well above the 24.9 percent national figure (Table 5). At the lower end of the spectrum, we find 15.9 percent of laborers and 16.2 percent of service workers stating that they have protection.

Table 20.

PERCENT PROTECTED DISTRIBUTED ACCORDING TO OCCUPATION

	<u>Percent</u>	<u>N</u>
Professional	30.3	175
Farmers and farm managers	26.1	88
Managers, officials and proprietors	29.3	174
Clerical	20.0	100
Sales	23.7	76
Craftsmen, foremen, and kindred workers	29.6	260
Operatives and kindred workers	25.0	224
Service workers	16.2	105
Laborers	15.9	138

When we look at the types of protection with respect to occupational group, we find that among those people who cite an impromptu shelter in their home as their protection, the occupational groups of professional, sales, and operatives have the highest percentages. That is, 83 percent of the professional people, 88.9 percent of sales personnel and 84.9 percent of operatives claim to have protection by an impromptu home shelter. Table 21 records these figures.

Table 21
TYPES OF PROTECTION BY OCCUPATION

	<u>Percent</u> <u>Home Impromptu</u> <u>Shelter</u>	<u>Percent</u> <u>Community</u> <u>Shelter</u>	<u>N</u>
Professional	83.0	17.0	53
Farmers and farm managers	77.3	22.7	22
Managers, officials and proprietors	72.5	25.5	51
Clerical	55.6	38.9	18
Sales	88.9	11.1	18
Craftsmen, foremen, and kindred workers	73.7	25.0	76
Operatives and kindred workers	84.9	15.1	53
Service workers	68.8	25.0	16
Laborers	63.6	36.4	22

These same occupational groups, quite naturally, have very few of their members stating community shelters as their protection (17 percent of the professionals, 11.1 percent of sales personnel, and 15.1 percent of operatives). Clerical workers and laborers had the highest percentages of people who relied on a community shelter for their protection (38.9 percent of clerical workers and 36.4 percent of laborers).

Table 22.
PERCENT OF PROTECTION BY INCOME

	<u>Percent</u>	<u>N</u>
Unde. \$3,000	14.3	224
\$3,000 to \$4,999	24.4	254
\$5,000 to \$7,499	26.4	387
\$7,500 to \$9,999	27.3	216
\$10,000 and over*	30.6	229

*Note: Three categories \$10,000 to \$14,999, \$15,000 to \$24,999 and \$25,000 and over, were combined into one.

It is clear from Table 22. that a positive correlation exists between percent protected and income. That is, as income increases from under \$3,000 to over \$10,000 there are like increases in the number of protected people from 14.3 percent to 30.6 percent.

When we use these various income groups to look at the types of protection, we find that those people in the highest income bracket (\$10,000 and over) have one of the highest percentages of impromptu shelter protection (82.6 percent). This can be seen in Table 23. It is to be expected that those people in the low income groups rely more on community shelters for their protection than any of the other income groups (27.6 percent of the under \$3,000 group and 38.3 percent of the \$3,000 to \$4,999 group). Having less money than others, these people must, quite naturally, rely on the community for protection.

Table 23.

TYPES OF PROTECTION BY INCOME

	<u>Percent Home Impromptu Shelter</u>	<u>Percent Community Shelter</u>	<u>N</u>
Under \$3,000	69.0	27.6	29
\$3,000 to \$4,999	60.0	38.3	60
\$5,000 to \$7,499	83.2	15.8	101
\$7,500 to \$9,999	78.0	20.3	59
\$10,000 and over*	82.6	17.4	69

*Note: Three categories, \$10,000 to \$14,999, \$15,000 to \$24,999 and \$25,000 and over were combined into one.

People who own their own homes are more protected than those w. o do not. 27.1 percent of home owners claim that they are protected as opposed to 20.8 percent of renters. Similarly, home owners rely on impromptu shelters in their place of residence to a much greater extent than do people who rent (85 percent of home owners cite impromptu shelters as their protection as compared to 55.6 percent of people who do not own their home.) As would be expected, more renters give community shelters as their protection (43.4 percent) than do home owners (13.7 percent).

Once again, we find a direct relationship existing between protection and a descriptive characteristic. It is clear from Table 24 that as we move from the lower to upper social class, we find an increase in the percentage of people claiming protection. 14.5 percent of those people who described themselves as lower class state that they have protection of some sort. This percentage increases with each social class up to 37.5 percent of the upper class. This could be, once again, a function of money.

Table 24.

PERCENT PROTECTED DISTRIBUTED BY SOCIAL CLASS

	<u>Percent</u>	<u>N</u>
Upper	37.5	32
Middle	27.4	602
Working	22.3	637
Lower	14.5	55

This pattern is duplicated in the comparison of types of protection with social class. (Table 25). A direct correlation exists between social class and percentage of people who rely on impromptu shelters in their homes for protection (62.5 percent of the lower class increasing to 83.3 percent of the upper class). And, quite naturally, the inverse relation holds between community shelters and social class (16.7 percent of the upper class increasing to 37.5 percent of the lower class).

Table 25.

TYPES OF PROTECTION DISTRIBUTED BY SOCIAL CLASS

	<u>Percent Home Impromptu Shelter</u>	<u>Percent Community Shelter</u>	<u>N</u>
Upper	83.3	16.7	12
Middle	75.5	23.3	163
Working	77.2	21.3	136
Lower	62.5	37.5	8

Tables 26 and 27 present the data on protection and types of protection relative to the number of people in the household.

Table 26.

PERCENT PROTECTED DISTRIBUTED BY NUMBER IN HOUSEHOLD

	<u>Percent</u>	<u>N</u>
1 person in household	18.6	102
2 people in household	23.2	340
3 people in household	24.4	246
4 people in household	28.0	284
5 people in household	27.6	185
6 or more persons in household	25.0	188

Table 27.

TYPES OF PROTECTION DISTRIBUTED BY NUMBER IN HOUSEHOLD

	<u>Percent</u> <u>Home Impromptu</u> <u>Shelter</u>	<u>Percent</u> <u>Community</u> <u>Shelter</u>	<u>N</u>
1 person in household	63.2	31.6	14
2 people in household	71.4	27.3	77
3 people in household	81.4	18.6	54
4 people in household	77.5	21.3	80
5 people in household	73.5	24.5	49
6 or more persons in household	82.2	17.8	45

It is clear from Table 26. that as the number of people in the household increases from one up to and including four, the percentage of those people who claim to be protected increases to a high of 28 percent. However, when the number in the household reaches five, the protection levels off and actually declines in the next category (25 percent of those with six or more in the household).

Table 27. points out that the group with only one person in the household has the lowest percentage of protection by an impromptu shelter with the highest percentage occurring in the households with six or more people (63.2 percent and 82.2 percent respectively). Conversely, the group with six or more people in the household has the lowest percentage of community shelter protection (17.8 percent) with the group of only one person in the household registering the highest percentage of community shelter protection (31.6 percent).

One question asked of all respondents was as follows:

In case of a nuclear attack, would you rather be in your private shelter or in a community shelter?

Table 28.

DISTRIBUTION OF PEOPLE WHO SAY THEY ARE PROTECTED BY DESIRABILITY OF TYPES OF SHELTERS

	<u>Percent Protected</u>	<u>N</u>
Private	15.9	544
Community	14.7	678
No Preference or Neither--Against shelters	1.9	116

Table 28. provides a distribution of the responses of those people who said they were protected in some way from a nuclear attack relative to the desirability of shelters. In the sample as a whole, there are more people who prefer community shelters (a little over 49 percent) over private ones (over 40 percent). But among the respondents who claim to have some level of protection, there are more interviewees among those with preferences for private than for community shelters. This is not altogether surprising because most of this added protection seems to occur in impromptu home shelters, and people with preference for private facilities would be more inclined to acquire some protection in their homes.

Table 29.

DISTRIBUTION OF TYPES OF PROTECTION BY DESIRABILITY OF TYPES OF SHELTERS

	<u>Percent</u> <u>Home Impromptu</u> <u>Shelter</u>	<u>Percent</u> <u>Community</u> <u>Shelter</u>	<u>N</u>
Private	13.1	2.4	425
Community	10.0	4.3	565
No Preference or Neither--Against Shelters	1.0	.6	101

The highest percentage of home impromptu protection occurs in the group who find private shelters most desirable. (13.1 percent). And, quite naturally, the lowest percentage of community shelter protection is found in this group. Of those who find community shelters most desirable, 4.3 percent are protected by community shelters and 10 percent are protected by an impromptu shelter in the home.

4. Conclusion

In this analysis, we examined those people who said they were shelter-owners and those people who said they were protected in some way from a nuclear attack even though they did not have a private fallout shelter. In addition, we considered the latter group of people with respect to the types of protection they stated as having. The purpose of this analysis was to obtain a clearer picture of the national distribution of the current level of civil defense preparedness of the population.

We found that there were, generally, no sharp descriptive differences in the characteristics of those people owning private shelters. Because of the small number of people in the group of shelter-owners, we are limited in drawing definite conclusions from any of the differences which do exist.

Keeping this limitation in mind, we can pose a very general summary statement about the shelter-owner in our population, based on the data from our study. Those people who have their own private fallout shelter tend to be 20 to 39 years of age, to own their own home, to be relatively highly educated, a professional with an income of \$10,000 a year or more, residing in one of the New England states, and identifies himself as a Republican.

Those people who said they were protected in some way from nuclear attack even though they did not have a private fallout shelter represent one-fourth of our civilian population.³ These individuals tend to be 20 to 29 years old, own their own home, residing in one of the New England states or the Mountain states, white, married, relatively highly educated, a member of either the professional, craftsmen, or manager occupational group with an income of \$10,000 or more per year, a member of the upper social class, and coming from a household with four members.

Those respondents who said they were protected, but not by a private fallout shelter, stated their protection as being one of three types--an impromptu shelter in the home, a community shelter, or an assumed community shelter. However, the assumed community shelter was so infrequently mentioned that discussion if it is not warranted. The person who is protected by an impromptu shelter in his home is white, 50 years of age or older, married with six or more persons in the household, a home-owner residing in either a non-metropolitan area which has no city of 10,000 residents or in a metropolitan area which has less than 2,000,000 residents in either one of the New England states or one of the Mountain states, with an annual income of \$15,000 or more, and in the upper class.

³ Current Population Report of November 15, 1963 estimates the nation's total civilian population in the fall of 1963 as 187,297,000.

In contrast to this, the person who relies on a community shelter for his protection tends to be Negro, 20 to 29 years of age, divorced or never married, with low income, a home-renter residing in a metropolitan area with a population of 2,000,000 or more in either the Middle Atlantic, South Atlantic or West South Central states, in the lower social class, and comes from a one-member household.

MARKING AND STOCKING PROGRAM

By Donna Krochmal

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1. Introduction

Between late June and early August, 1963, a nation-wide study of attitudes toward the Cold War and civil defense was conducted by the University of Pittsburgh. The National Opinion Research Center of the University of Chicago did the field work, and the sample design called for a probability sample of 1,500 Americans. Actually, 1,434 interviews were completed, and the discrepancy is accounted for by the fact that some respondents even after a substantial number of call-backs proved impossible to reach.

This report deals with the marking and stocking of shelter spaces. The respondents were asked to describe the present civil defense program in their respective communities in terms of the surveying, marking and stocking of available shelter spaces. They were also asked how likely it was that shelter spaces are marked and stocked with everything necessary for survival as well as how desirable it was that they be marked and stocked. They were then asked how much they thought their neighbors and the President wanted shelters to be marked and stocked.

Thus, it is possible to place the information level regarding the surveying, marking and stocking of shelter spaces into the context of the actual state of the marking and stocking program when that information becomes available. (The data regarding the actual numbers and locations of shelter spaces which are marked and stocked do not presently exist.) The evaluation as to how much the respondents want shelter spaces to be marked and stocked as well as how much they think their neighbors and the President want it is one type of expression of attitude, indicative of the level of receptivity at least to this phase of the program. The data have some important implications. This report will explore them and make them explicit in the process.

2. Descriptions of the Marking and Stocking Program

To establish how Americans describe the present civil defense program in their communities as regards the surveying, marking and stocking of shelter spaces, we asked the following question:

"As best you can tell, which statement describes the present Civil Defense program in your community (neighborhood)?"

- A. Nothing has been done that I would know of.
- B. Available shelter spaces have been surveyed, but the spaces have not been marked or stocked.
- C. A survey of shelter spaces was done and the spaces have been marked as shelters, but not stocked.
- D. A survey of shelter spaces was done, the shelters were marked, and are also stocked."

Table 1. provides the national distribution relative to a total sample excluding those people who either didn't know or were unwilling to answer the question.

Table 1.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY

	<u>In Percent</u>
Nothing	54.4
Surveyed	12.6
Marked	21.9
Stocked	11.0
	(1423)*

*Sample excluding Don't knows and No answers.

It is clear from Table 1. that about one in two Americans answered that nothing had been done that they knew of. About one in eight Americans answered that shelter spaces had been surveyed but not marked or stocked; about one in five answered that they had been surveyed, marked but not stocked; and about one in nine answered that shelter spaces had been surveyed, marked and also stocked. Thus, a little over half (54.4%) of the population said that nothing has been done in their communities regarding the surveying, marking and stocking of shelter spaces. 12.6 percent claim that available shelter spaces have been surveyed but not marked or stocked. 21.6 percent claim that shelter spaces have been surveyed and marked but not stocked. Finally, 11 percent claim that shelter spaces in their communities have been surveyed, marked and stocked.

Table 2. presents the respondents according to their residence size--whether they live in metropolitan or rural areas. About three-fifths, 59.5 percent, of all Americans who live in a standard metropolitan area of 2,000,000 or over, and a little over three-fifths, 63.3 percent, of all Americans who live in non-metropolitan counties with no city of 10,000 say they know of nothing that has been done about Civil Defense in their communities. The smaller metropolitan areas and large rural areas have the largest percentages of people who claim that shelter spaces have been either marked or marked and stocked. Only 5.1 percent of those people who live in large metropolitan areas describe shelters as marked

and stocked, although 22.8 percent describe them as marked only. Only 4.8 percent of those people who live in small rural areas describe shelters as marked and stocked while 15.7 percent describe them as only marked.

The fact that people of rural areas and large metropolitan areas know less about the marking and stocking program may be accounted for by the fact that, in rural areas, there are actually fewer shelter spaces making them less visible, and, in large metropolitan areas, there are few shelter spaces in relation to the number of buildings so that they, too, might be less visible.

Table 2.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY RESIDENCE SIZE

	<u>In Percent</u>				No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
Standard Metropolitan Area (2,000,000 or over)	59.5	12.7	22.8	5.1	316
Other metropolitan	50.2	10.2	24.4	15.3	570
Non-metropolitan single county with major city of 10,000 or over	45.5	13.8	23.2	17.4	224
Non-metropolitan single county with no city of 10,000	63.3	16.3	15.7	4.8	313

There are sharp regional differences when we consider those people who say they know of nothing at all that has been done for the Civil Defense program. The highest percentages (West South Central states, including Arkansas, Louisiana, Oklahoma, and Texas and the East North Central states, including Indiana, Illinois, Michigan, Ohio and Wisconsin) are 63.3 percent and 58.5 percent respectively. The lowest percentages (New England, including Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, and West North Central states, including Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota and North Dakota) are 37.5 and 39.9 percent respectively. More people in the New England area (33.9 percent) describe shelter spaces as being marked than in any other area, but more people in the West North Central, 20.9 percent, and Mountain, 18.2 percent, (including Arizona, Colorado, Idaho, Montana, New

Mexico, Utah, Nevada, and Wyoming), areas describe shelter spaces as being marked and stocked. The Middle Atlantic (5.9 percent), South Atlantic (8.7 percent), and New England (8.9 percent) areas have the smallest percentage of people who say that shelters are not only marked but also stocked.

Table 3.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY NATION'S REGIONS

	<u>In Percent</u>					No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>		
New England	37.5	19.6	33.9	8.9	56	
Middle Atlantic	55.5	11.7	27.0	5.9	256	
East North Central	58.5	12.7	17.7	11.2	260	
West North Central	39.9	14.7	24.5	20.9	163	
South Atlantic	56.0	12.0	23.4	8.7	184	
East South Central	55.4	13.5	18.9	12.2	74	
West South Central	63.3	11.7	15.4	9.6	188	
Mountain	47.7	9.1	25.0	18.2	44	
Pacific	55.6	12.1	20.7	11.6	198	

There are some sharp racial differences as well. 52.1 percent of white respondents say that nothing has been done that they know of; whereas 72.0 percent of Negro respondents say so. 13.7 percent of white respondents say that available shelter spaces have been surveyed, but the spaces have not been marked or stocked; whereas 5.5 percent of Negro respondents say so. 23.3 percent of white respondents say that a survey of shelter spaces was done and the spaces have been marked as shelters, but not stocked; whereas 12.2 percent of Negro respondents say so. 11.0 percent of white respondents say that a survey of shelter spaces was done, the shelters were marked and are also stocked; whereas 10.4 percent of Negro respondents say so.

It is evident from the above figures that the percentage of Negroes who know of nothing that has been done is much higher than that of the white respondents. Consistently, the white respondents who do describe the shelter spaces in their communities as surveyed, marked or marked and stocked is higher than that of the Negro respondents.

More women say that they know of nothing that has been done for Civil Defense (59.9 percent) than do men (47.8 percent). Men consistently see the program as further advanced than do women: 14.3 percent of men say that shelter spaces have been surveyed as against 11.3 percent of women who say so; 26.3 percent of men say shelters have been marked as against 18.2 percent of women who say so; 11.5 percent of men say shelters have been marked and stocked, whereas 10.6 percent of women say so. This could be accounted for by the fact that most shelter spaces are in a downtown or business area and would thus be generally more visible to men than women. Also the information level of men is generally higher than women due to their greater mobility and the fact that men read newspapers and periodicals more than do women.

Although attitudes toward civil defense generally correlate with age (in that younger people generally appear to be more favorable than older people), no major patterns of difference emerge when it comes to describing the marking and stocking program of shelter spaces in the respondents' communities.

The various age groups are quite similar amongst the people who say they know of nothing that has been done except for the elderly groups (over 60 years of age) which have a larger percentage (69.4 percent). Less people in the above elderly groups describe shelter spaces as being surveyed and marked and stocked than do respondents in younger age groups. Thus, we can say that the elderly (60 and above) estimate that less has been done regarding surveying, marking and stocking than the younger groups.

Table 4.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING
OF SHELTER SPACE IN THE RESPONDENTS' COMMUNITY BY MARITAL STATUS

	<u>In Percent</u>				No. in <u>Sample</u>
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
Single--Never married	47.2	13.8	26.0	13.0	123
Married	54.0	13.0	22.0	11.0	1125
Divorced	45.1	9.8	31.4	13.7	51
Widowed	70.2	9.5	10.7	9.5	84
Separated	68.4	10.5	15.8	5.3	38

Table 4. reveals considerable differences depending on the marital status of the respondent. Widowed and separated respondents are the largest groups who claim that nothing has been done that they would know of. They yield consistently the smallest percentage of respondents who describe shelter spaces as marked, or marked and stocked. A little more than one out of every two (54.0 percent) married couples say that they know of nothing that has been done.

There is a definite association between education and level of information. The higher the education of the respondents the smaller the percentages of those respondents who say that nothing has been done that they know of. The higher the education of the respondents through college the higher the percentages of those people who describe shelter spaces as surveyed and marked. However, those with education beyond college have lower percentages as regards knowledge of surveying and marking. A similar pattern is visible in relation to stocking. However, college graduates as well as those educated beyond college have lower percentages regarding stocking.

Although the highly educated groups would be aware of the program, it is unlikely that these groups would have located the shelter spaces and visited one to see if it had been stocked or not.

Table 5.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING
OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY EDUCATION

	<u>In Percent</u>				No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
No School	100.0				4
Grammar School (1-8 yrs.)	68.3	8.2	14.5	8.9	303
Some High School (9-11 yrs.)	61.3	10.1	18.4	10.1	326
Completed High School (12 yrs.)	51.7	13.7	21.8	12.8	431
College, incomplete	41.2	16.6	27.8	14.4	187
College, complete	36.2	19.0	36.2	8.6	105
Beyond College	37.5	17.2	35.9	9.4	64

Farmers, farm laborers, service workers, and laborers have the highest percentages of those who claim that nothing has been done that they know of. Laborers, farm laborers, service workers and sales have the smallest percentages of those who know that shelter spaces have been surveyed. Farmers, service workers, farm laborers, and laborers have the smallest percentages of respondents who claim that shelter spaces have been marked. The pattern changes regarding stocking. The smallest percentages are amongst the farmers, managers, officials, and proprietors, service workers, operatives and professionals. Clericals have the highest percentage of respondents who describe shelter spaces as marked and stocked. Table 6. is a summary of the data.

Table 6.

PERCEPTIONS REGARDING THE SURVEYING, MARKING AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY OCCUPATION

	<u>In Percent</u>				No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
Professional	41.8	17.5	30.7	10.1	189
Farmers, farm managers	73.6	12.1	9.9	4.4	91
Managers, officials, proprietors	46.6	15.3	29.0	9.1	176
Clerical	50.9	13.2	18.9	17.0	106
Sales	44.9	10.3	32.1	12.8	78
Craftsmen, foremen	55.7	11.8	18.9	13.6	280
Operatives	56.2	12.8	21.3	9.8	235
Service workers	63.6	10.9	16.4	9.1	110
Farm laborers	83.3	---	16.7	---	12
Laborers	61.0	8.2	17.8	13.0	146

As income increases, the lower are the percentages of respondents who say that nothing has been done that they know of. This holds true regarding the surveying and marking of shelter spaces. However, as regards stocking, the very highest income group and the very lowest income group are the smallest. Table 7. documents this.

Table 7.

PERCEPTIONS OF SURVEYING, MARKING AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY RESPONDENT INCOME

	<u>In Percent</u>				No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
Less than \$3,000	72.3	7.2	11.9	8.5	235
\$3,000-\$4,499	53.3	12.7	21.4	12.7	276
\$5,000-\$7,499	52.7	12.1	21.9	13.3	406
\$7,500-\$9,999	49.8	16.9	24.0	9.3	225
\$10,000-\$14,999	45.1	12.3	30.9	11.7	162
\$15,000-\$24,999	42.6	14.8	31.1	11.5	61
Over \$25,000	26.7	40.0	26.7	6.7	15

The lower class has the highest percentage of respondents who say they know of nothing that has been done whereas the middle class has the smallest percentage who say so. Again the lower class has the smallest percentage of people who describe shelters as being surveyed and marked whereas the middle class has the highest percentage who say so. The upper and lower classes have the highest percentages of respondents who describe shelter spaces as marked and stocked whereas the middle class and working class are just about the same. Thus, those respondents with less education, less prestigious occupations, lower income and who identify with the lower social classes know less about the program. In other words, people who generally have less information in our society are also less informed about the program.

Table 8.

PERCEPTIONS OF SURVEYING, MARKING, AND STOCKING OF SHELTER SPACES IN RESPONDENTS' COMMUNITY BY SOCIAL CLASS IDENTIFICATION

	<u>In Percent</u>				No. in Sample
	<u>Nothing</u>	<u>Surveyed</u>	<u>Marked</u>	<u>Stocked</u>	
Upper	51.6	12.9	19.4	16.1	31
Middle	47.0	15.2	27.5	11.3	630
Working	59.5	11.1	18.0	11.4	674
Lower	75.0	1.8	10.7	12.5	56

Among people who own their own residence 54.2 percent claim they know of nothing that has been done, 14.1 percent say that shelter spaces have been surveyed, 22 percent that they have been marked and 9.8 percent that they have been marked and stocked. The only differences which occur among those people who rent their place of residence are those people who describe the shelter spaces as having been surveyed, 10.1 percent, and those who describe them as having been stocked, 13.4 percent.

3. Perceived Probabilities That Existing Spaces Will Be Marked and Stocked.

First, we wished to know how much people know about the civil defense program in their communities as regards marking and stocking. Secondly, we wished to know how receptive people are to the marking and stocking program. There are numerous ways in which we could measure receptivity. We chose to probe into how likely people thought it was that most existing spaces which provide good protection against fallout will be marked as shelters, and stocked with everything necessary for survival. This does not force the respondent to say either that he wants them marked and stocked or not; it simply seeks to ascertain how probable it seems to him at the time that shelter spaces will be marked and stocked.

The scale which we used ranges from zero to ten. On the scale, the zero response implies certainty or near-certainty that the respondent does not think it likely that shelter spaces will be marked and stocked. Five mirrors a fifty-fifty likelihood that shelter spaces will be marked and stocked. And ten, of course, implies certainty that shelters will be marked and stocked. Other values on the scale represent varying likelihood estimates that shelter spaces will be marked and stocked being more likely (values 6, 7, 8, 9) than not, or

being increasingly less likely (values 4, 3, 2, 1). 29.9 percent of the respondents felt that it was certain or near-certain that existing shelter spaces will be marked as shelters and stocked; 42.3 percent felt that it was likely; 14.0 percent that it was as likely as not; 11.1 percent that it was unlikely and 2.7 percent that it was certain or near-certain that shelter spaces would not be marked and stocked. The average is 7.28 (mean) which means that most people think it likely that existing shelter spaces will be marked as shelters and stocked with everything necessary for survival.

Table 9.

PROBABILITY THAT EXISTING SHELTER SPACES WILL BE MARKED AS SHELTERS
AND STOCKED WITH EVERYTHING NECESSARY FOR SURVIVAL

<u>Scale Value</u>		<u>In Percent</u>
10	Certain or near-certain	29.9
6, 7, 8, 9	Likely	42.3
5	As likely as not	14.0
1, 2, 3, 4	Unlikely	11.1
0	Certain or near-certain not	2.7

The various characteristics (region, age, sex, education, etc.) dealt with in the previous section are not relevant when dealing with perceptions of likelihood. Except for a few isolated cases which will be mentioned, likelihood perceptions are consistently uniform and high regardless of breakdown by respondent characteristics.

In looking at the perceptions of likelihood by region of the nation, people in the Mountain states (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming) have the highest percentage of people who are certain about this (50.0 percent); in fact, an additional 40.9 percent consider it likely. The average score for the Mountain region is 8.68, at least 1.0 higher than the other regions.

Those people who are college graduates or have education beyond college are least certain (15.0 percent and 22.0 percent respectively) as opposed to all the other education levels whose percentages range from 12.6 percent to 14.4 percent.

As regards income, the highest percentage of certainty appears in the highest income group, 40.0 percent, and the next highest percentage 33.5 percent in the income group of \$3,000 to \$4,999. The highest income group also holds the highest percentage, 20.0 percent, of people who think it likely that shelter spaces will not be marked and

stocked. As regards class identification, those people in the middle class have the highest percentage of certainty, 31.9 percent. The upper class has the lowest percentage of certainty, 18.8 percent.

4. Desirability that Existing Spaces Will Be Marked and Stocked.

Now that we have found how likely people think it is that shelter spaces will be marked and stocked we also wish to know how desirable they think it is. The scale which we used is a seven point scale ranging from -3 indicating an extreme undesirability and +3 indicating an extremely desirable situation. Zero on the scale indicates an indifferent response.

Sixty-nine percent of the respondents felt it highly desirable that existing shelter spaces be marked as shelters and stocked; 21.0 percent felt that it was desirable; 4.6 percent were indifferent to the notion; 2.8 percent thought it undesirable; and 2.6 percent thought it extremely undesirable. Thus, 90.0 percent or 9 out of every ten Americans think it desirable and highly desirable that existing shelter spaces be marked and stocked.

Table 10.

DESIRABILITY THAT EXISTING SHELTER SPACES WILL BE MARKED AS SHELTERS AND STOCKED WITH EVERYTHING NECESSARY FOR SURVIVAL

<u>Scale Value</u>		<u>In Percent</u>
+3	Highly desirable	69.0
+1, +2	Desirable	21.0
0	Indifferent	4.6
-1, -2	Undesirable	2.8
-3	Highly undesirable	2.6

As with the perceptions of probability, perceptions of desirability are consistently uniform and high regardless of interviewee characteristics. A few relevant differences appear.

In large metropolitan areas, the percentage of indifferent responses is higher than in any other residence size. There is a higher percentage of indifferent responses, 9.3 percent, in the Middle Atlantic states (New Jersey, New York and Pennsylvania), than in any other region. More males are indifferent (5.9 percent) than are women, (3.5 percent). Whites are more indifferent (4.9 percent) than are Negroes, (2.5 percent). In terms of marital status, the respondents

who are separated or divorced have higher percentages of high desirability responses, 73.0 and 86.0 respectively.

The most educated groups--college graduates and those educated beyond the college level--are most indifferent, 6.5 and 9.4 percent respectively. These groups also have the highest percentage of undesirable responses, 14.0 and 17.3 percent respectively.

Those respondents in the highest income groups have the highest percentages of indifferent responses and the lowest percentages of high desirability responses.

As regards social class identification, there is a higher percentage of indifferent responses, 5.7 percent, and a lower percentage of high desirability responses, 58.5 percent, among the lower class than any other class.

5. Desirability Attribution

Respondents have perceptions of what various referents desire and do not desire. Hence, it can be said that they "attribute desirabilities" to someone else. For our purposes, the respondents were asked to attribute desirability regarding the marking and stocking of existing shelter spaces first to their neighbors and then to the President.

The attributed desirabilities are high in both cases. 62.7 percent of the respondents thought that their neighbors thought that the marking and stocking of existing shelter spaces was highly desirable. 27.8 percent thought that their neighbors thought it was desirable. 5.7 percent thought their neighbors were indifferent to the prospect. 2.4 percent thought that their neighbors thought it highly undesirable.

Table 11.

ATTRIBUTED DESIRABILITY TO THE NEIGHBORS REGARDING THE MARKING AND STOCKING OF EXISTING SHELTER SPACES

<u>Scale Value</u>		<u>In Percent</u>
+3	Highly desirable	62.7
+1, +2	Desirable	27.8
0	Indifferent	5.7
-1, -2	Undesirable	2.4
-3	Highly undesirable	1.4

Seventy-two percent thought that the marking and stocking of existing shelter spaces was also highly desirable to the President. 22.5 percent thought that the president thought it desirable. 1.9 percent though that he was indifferent about it. 2.5 percent thought that he felt it was undesirable. 1.1 percent thought that he felt it was highly undesirable.

Table 12.

ATTRIBUTED DESIRABILITY TO THE PRESIDENT REGARDING THE MARKING AND STOCKING OF EXISTING SHELTER SPACES

<u>Scale Value</u>		<u>In Percent</u>
+3	Highly desirable	72.0
+1, +2	Desirable	22.5
0	Indifferent	1.9
-1, -2	Undesirable	2.5
-3	Highly undesirable	1.1

6. Conclusions

The most salient results of the study may now be summed up:

1. A little more than half of the population claim that they know of nothing that has been done for Civil Defense in their communities.
2. Approximately three-fourths of the population think it certain or likely that existing shelter spaces will be marked and stocked.
3. Ninety percent of the population think it desirable that shelter spaces be marked and stocked.
4. Ninety percent of the population view their neighbors as favorable to the marking and stocking of shelter spaces.
5. Over ninety percent of the population view the President as favorable to the marking and stocking of fallout shelters.
6. No population segment can be singled out as being drastically at variance with this underlying view.

Although no major subgroup differences exist, and all population segments considered are quite favorable to the program, a few differences regarding the descriptions of the level of the program establish something of a pattern:

1. More people who live in small cities and urbanized counties (with a city of 10,000 or more) describe the shelter spaces as marked and stocked than do people who live in large metropolitan complexes or in rural counties (with no city of 10,000 or more inhabitants).
2. More whites than Negroes describe shelter spaces as being marked and stocked.
3. More men than women describe shelter spaces as being marked and stocked.
4. More people with higher incomes describe shelters as surveyed and marked than do people in the lower income brackets. However, less people in the very highest income groups and the very lowest income groups describe the shelters as stocked than do other income groups.
5. More people of the upper and lower classes say they know of nothing that has been done than do people who identify with other classes. More people of the middle class describe shelters as being marked than any other class. However, more people in the upper and lower classes describe shelters as being stocked than do other classes.

Generally, those people of a higher socio-economic status were more informed about the program than were those in the lower socio-economic groups. There were no differences between socio-economic groups regarding likelihood perceptions. As regards the desirability of the program the pattern has a tendency to reverse itself with the lower socio-economic groups finding it more desirable than the higher socio-economic groups.

INFORMATION LEVEL

By Richard Pomeroy

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1. Introduction

"The Study of Cold War and Civil Defense Attitudes", sponsored by the Office of Civil Defense, is an ongoing research program conducted by the Research Office of Sociology at the University of Pittsburgh. As part of this program a representative national sample of 1434 Americans were asked a series of questions on their attitudes, opinions and responses to a number of cold war and civil defense issues. This survey was administered in the summer of 1963 by the National Opinion Research Center during the conclusion of the nuclear test ban agreement by the atomic powers.

This report is concerned with the overall information level of Americans on the topics of nuclear war and fallout shelters and the sources through which Americans are exposed to communications on these vital issues. In the mid-1963 survey the respondents were asked to recall any movies, television programs, or reading material they may have encountered that dealt with nuclear war or fallout shelters. In each instance where a respondent could recall exposure to such an item he was asked to specify its title (if a movie, television program or book) or its source (if an article in a magazine or a pamphlet). Over two-thirds of the sample claimed recall of exposure to one or more of these sources of information.

This report deals with the following questions asked of respondents in the FOREIGN AFFAIRS AND CIVIL DEFENSE questionnaire administered in the summer of 1963 by the Research Office of Sociology of the University of Pittsburgh.

Question No.

47. Do you recall seeing any movies or TV programs about nuclear (atomic) war or fallout shelters?
IF YES:
47A. Which ones?
48. Do you recall reading any books about nuclear (atomic) war or fallout shelters?
IF YES:
48A. Could you give me any of the titles of such books you've read?
49. How about articles, booklets or pamphlets about nuclear (atomic) war or fallout shelters?
IF YES:
49A. Could you recall where these appeared?
49B. Any others?

This analysis will be primarily concerned with the actual and comparative extent of exposure to information on atomic war and fallout shelters via each of the basic communications media. We will be concerned with who the people exposed are, where they are, and the extent to which the various media differ in the characteristics of the people exposed to them. The secondary items, specifying the exposure will be dealt with separately. A further, separate, examination will be made of the effect of time of interview on the exposure responses. This item relates the actual date of each interview conducted in the survey to the progress of the nuclear test ban agreement during the period interviews were conducted.

In summary, over two-thirds of the sample was exposed to at least some information on nuclear war or fallout shelters. Those who were so exposed tend to be young, well-educated, high income, have a number of young children and work at a relatively high status occupation. They are likely to live in urban and suburban rather than rural areas and the head of the household probably had military service. There seem to be no especially striking geographic differences although some areas of the country can be said to be relatively more or less "informed" than others. A number of the "characteristics" of the "informed" or "exposed" actually are inter-related, such as income and education. The relatively higher exposure of Jews and Roman Catholics over Protestants is probably related to the rural-non rural differences mentioned.

The overall level of reported exposure to information on nuclear war and fallout shelters must be viewed in terms of the actual nature of the communication responsible. On the Beach, as a novel (book), movie and television presentation occurs with considerable frequency in the specified responses. So do the novel Fail-Safe and the television program Twilight Zone. Daily newspapers and the various popular magazines such as Reader's Digest, Life, and the Saturday Evening Post (which published a condensation of Fail-Safe) account for much of the respondent exposure.

Of greater relevance are the sixteen percent of the total sample replying who have been able to recall exposure to Civil Defense sponsored literature. Another 6.9 percent mentioned other government agencies as sources of information on nuclear war and fallout shelters. Thus, over a fifth of the total sample, 22.9 percent, were able to recall reading either Civil Defense or other government sponsored material.

2. The Communications Media

Table I summarizes the responses to the primary questions on exposure to the three basic information sources. Somewhat over half of the respondents in the sample, 54.9 percent, were able to recall a movie or television program dealing with nuclear war or fallout shelters.

As might be expected fewer, 16.9 percent, mentioned reading any "books". The most frequent exposure reported was to various articles, pamphlets and booklets with over two-thirds of the sample, 67.2 percent, mentioning one or another of these. Because of the small proportion of the sample who responded at all to the question on books read and because of the ambiguous nature of the responses obtained the analysis to follow is chiefly based on replies to the items on television-movie viewing and articles etc.¹ The data on "books" read will be included for all tables.

TABLE 1*

COMMUNICATIONS MEDIA AND REPORTED EXPOSURE

	Movies-TV	"Books"	Articles etc.	(N=)
percent exposed	54.0	16.9	67.2	(1,223)

*Note: Due to differential response rates the total "N" will vary from table to table. All stated percents and related calculations are based on the actual number answering each item or set of items. The "N" given in parentheses is the basic one for each table. For any one communications source the particular "N" may actually vary by two or three respondents since not all respondents answered all questions.

The next portion of this report analyzes the characteristics of those respondents who recalled exposure to TV-movie presentations or reading matter on nuclear war or civil defense. Generally, TV-movie viewing and reading do not differ substantially in the characteristics of the respondents exposed to them, but there are some differences of note to be examined. The actual content of the information provided respondents by each media type will be discussed in the section on Specific Media Sources.

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See section 4 for an analysis of each communications medium.

3. Respondent Characteristics

Some people in the sample recalled exposure to information on nuclear war and civil defense. Others did not. Our concern in this present inquiry is to determine if those so exposed differ from those not exposed and what is the nature and extent of any differences observed. A number of pertinent characteristics will be specified, with the percent reporting exposure given for each. Since not all respondents answered all questions the number of respondents (given as N) will differ slightly from table to table.

Size of Sampling Unit. The community in which each respondent lived was classified by the standard size of the sampling unit. These were the large standard metropolitan areas of two million or over, metropolitan areas of less than two million, counties with a city of ten thousand population or over, and counties with no city as large as ten thousand. Table 2 specifies the general exposure levels of Table 1 for these size breakdowns. Respondents who live in essentially rural areas, in counties with no city as large as 10,000 population, report considerably less exposure to information on nuclear war and civil defense than do those respondents who live in a metropolitan area or in a county with a city of 10,000 population. This holds for both TV-movie viewing and reading. The "rural" exposure levels of 45.5 percent for TV-movies and 60.4 percent for articles, booklets etc. read will be found reflected in later tables on occupational groupings where farm personnel also report low exposure.

TABLE 2
SAMPLING UNIT SIZE AND EXPOSURE

Percent exposed to	Standard Met. Area 2,000,000 and more	Other Met. Area	County with city of 10,000	County without city of 10,000
TV-movies	52.2	58.6	56.4	45.5
"Books"	19.1	15.5	18.7	15.9
Articles etc.	67.2	71.1	66.7	60.4
(N=)	(316)	(568)	(225)	(314)

Geographic Location. Unlike the rural-non rural differential found in Table 2, Table 3 indicates little difference in TV-movie exposure across the nation. The sparsely settled North Central regions are lowest but not by much. However, the proportions reporting exposure to articles on nuclear war and fallout shelters do vary from region to region. Only two of the regions vary more than 6 percent from the overall mean proportion of 67.2 percent. These are the East South Central region with a low of 52.7 percent and the Mountain region with a high of 81.4 percent. The former fits, although in an accentuated fashion, with other results on race, rural-urban differences, and the income-education complex. The Mountain region high figure must go largely unexplained at this level of analysis, save perhaps for the smallness of the sample size there, forty-four.

Since, except for the two regions discussed, there is relatively little variance across the nation, it can be tentatively assumed that geographic location does not have an appreciable effect on reported exposure to information on nuclear war and fallout shelters. Other, respondent centered, characteristics seem to have far more dramatic and consistent consequences for information level.

TABLE 3

TYPE OF COMMUNICATIONS EXPOSURE BY GEOGRAPHIC LOCATION

	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
% exposed to	(59)	(254)	(260)	(161)	(184)	(73)	(190)	(44)	(198)
Movies-TV	52.5%	56.3%	50.8%	50.3%	54.3%	53.4%	54.2%	56.8%	57.6%
"Books"	16.9%	18.8%	15.6%	10.6%	18.6%	12.2%	16.3%	13.6%	22.6%
Articles etc.	72.9%	63.2%	67.9%	72.2%	64.1%	52.7%	65.3%	81.4%	72.4%

(The actual number of respondents for each region is given in parentheses).

The personal attributes and social characteristics of the respondents provide the most consistent and interesting differences in degree of "exposure" to information on nuclear war and fallout shelters. Of particular interest are the exposure patterns observed in the cluster of socio-economic characteristics usually associated with indices of "social class". Education, income, occupation, and the respondents' own perception of their social class form a consistent, related set. In general, higher status respondents report higher levels of exposure than do respondents with socio-economic characteristics indicating overall lower status. This particular set of respondent characteristics provides greater differences for exposure to reading matter than for television and movie viewing.

Of these "status" characteristics the respondents' education provides by far the greatest association for reported exposure. As education increases so does exposure to communications media dealing with nuclear war and fallout shelters. A generally similar result obtains for income; the wealthier are more likely to report exposure. Among the occupation groupings of the respondents exposure varies too, more for "reading" than for TV-movie viewing. The professionals in our sample read the most. Laborers, service workers and farmers the least. Sales and managerial personnel also reported high exposure to such literature. For television-movie viewing a similar pattern holds but the differences are less marked. In effect we have two basic groupings. Service workers, laborers, and farmers all report low exposure to television and movies while the remaining job classifications report relatively high exposures of roughly comparable levels.

When asked to assign themselves to a social class the respondents cluster into the middle and working classes, as Americans usually do when provided this question. Those who reply "middle class" indicate somewhat greater exposure than do those who choose "working class", and considerably higher exposure than those few in the sample who feel they are "lower class". The 32 respondents who regard themselves as "upper class" indicate somewhat lower TV-movie viewing than do the "middle-working classes". This follows closely the results for the extremely high income respondents. A similar pattern holds for the "upper class" reading habits. In summary, our respondents' perceived status resembles closely the findings observed for the various status associated characteristics. A specific examination of each of these characteristics follows.

Education. For both television-movie viewing and the reading of articles etc. the more educated report greater exposure than the less educated. This is especially true of exposure to articles and booklets etc. Those respondents with a grammar school education or less report 42.2 percent exposed while those who have been to college report from 85.8 to 88.8 percent exposure. A similar pattern holds for TV-movie viewing. Here, however, those respondents who have gone beyond college report a slight drop in exposure. While those who have had some college report 64.4 percent TV-movie exposure and

those who have graduated 65.1 percent, those who have gone further drop to 59.4 percent. A number of factors may account for the drop in reported TV-movie exposure for those respondents who have continued their education beyond college. It may well be that these highly educated respondents simply watch TV less and read more, as is indicated by their reported exposure to "books", 42.9 per cent, which is considerably higher than for those who only completed college. Although generally not much faith can be placed in reported exposure to "books" the response is likely much more meaningful for these well educated people. Another possibility is that while those who have gone beyond college are comparably "exposed" to TV-movie viewing they may have answered the question more specifically. That is, they only replied in terms of more serious programming and did not think of science-fiction shows etc. as "programs about nuclear war or fallout shelters".

With regard to the reading of articles, booklets and pamphlets etc. Table 4 suggests that those who have been to college at all comprise one high exposure cluster followed by the remaining educational divisions. For all educational levels the respondents report higher exposure to articles etc. than to TV-movie viewing. Although reported exposure generally increases with education for both TV-movie viewing and reading the association is greater with reading. In effect, education results in relatively greater exposure to articles etc. as well as actually higher levels compared with television-movie viewing. Thus, the less well educated seem to receive relatively more of their information on nuclear war and fallout shelters from TV-movie viewing than do the well educated. For those who have not attended high school reading is reported only 5.0 percent more than TV-movie viewing, and for those who attended high school but did not graduate the difference is only 5.5 percent (53.2 percent for TV-movies and 58.7 percent for articles etc.). For those who graduated from high school the difference between the two types of exposure jumps to 16.4 percent and is over 20 percent for the various college groups.

TABLE 4

EDUCATION AND EXPOSURE

percent exposed to

Education	TV-Movies	"Books"	Articles etc.	(N=)
Grammar School or less	37.2	6.5	42.2	(311)
Some High School	53.2	10.1	53.7	(327)
High School Graduate	58.5	18.1	74.9	(431)
Some College	64.4	25.7	85.8	(190)
College Graduate	65.1	30.8	88.8	(107)
Beyond College	59.4	42.9	87.5	(64)

Income. As for education, exposure to all types of communications media increases with income. Again, the pattern is less dramatic for TV-movie viewing than it is for exposure to articles etc. The range of 41.7 percent to 84.2 percent for articles, booklets and pamphlets etc. recalled is far greater than the 43.3 percent to 60.4 percent found for TV-movie viewing. Note that the extremely high income respondents, \$15,000 and over, actually report relatively low TV-movie exposure. This replicates in a sense the same result for the "upper class" respondents. The less well off in the sample exhibit the same relatively greater TV-movie exposure found for the less educated. In fact, those with incomes under \$3,000 annually report slightly higher exposure to TV-movies, 43.3 percent as compared to 41.7 percent exposure to articles etc.

TABLE 5

FAMILY INCOME AND EXPOSURE

percent exposed to

Income	TV-Movies	"Books"	Articles etc.	(N=)
<u>under \$3,000</u>	<u>43.3</u>	<u>9.8</u>	<u>41.7</u>	<u>(231)</u>
<u>\$3,000-4,999</u>	<u>51.6</u>	<u>15.1</u>	<u>63.7</u>	<u>(279)</u>
<u>\$5,000-7,499</u>	<u>55.9</u>	<u>17.3</u>	<u>70.4</u>	<u>(406)</u>
<u>\$7,500-9,999</u>	<u>58.0</u>	<u>21.1</u>	<u>76.3</u>	<u>(226)</u>
<u>\$10,000-14,999</u>	<u>60.4</u>	<u>20.6</u>	<u>83.0</u>	<u>(164)</u>
<u>\$15,000 and over</u>	<u>54.0</u>	<u>22.7</u>	<u>84.2</u>	<u>(76)</u>

Occupation. The relationship of respondents' occupation to level of reported exposure follows the findings for income and education. Again, the differences observed are greater for exposure to reading matter. For TV-movie viewing there are effectively two basic groupings; the various farm personnel, service workers, and laborers are low in reported exposure while the rest of the job types cluster somewhat above the average of 54.0 percent for the total sample exposure to TV-movie viewing. Reported exposure to articles etc. is highest for professionals with 85.3 percent so reporting. Managerial and sales personnel are also high with 75.3 percent and 76.9 percent respectively. These are then followed by craftsmen, clerical employees, and operatives. As found for TV-movie viewing, farm personnel, service workers, and laborers are lowest in reported exposure to reading matter.

TABLE 6

OCCUPATION AND EXPOSURE

percent exposed to

Occupation	Movies-TV	"Books"	Articles etc.	(N=)
Professional	59.5	29.5	85.3	(190)
Managers	57.9	16.4	75.3	(178)
Sales	59.0	21.8	76.9	(78)
Clerical	57.1	17.0	68.9	(105)
Craftsmen	58.7	16.1	70.4	(281)
Operatives	54.7	14.0	64.0	(234)
Service	46.8	11.7	52.3	(111)
Laborers	46.5	14.4	50.0	(144)
Farm Managers	32.2	8.7	53.3	(90)
Farm Laborers	41.7	8.3	25.0	(12)

Social Class. In view of the preceding results for level of exposure for education, income, and occupation it appears that the sample allocates itself rather reasonably into the social classes provided by the questionnaire. As discussed before, the sample clustered into the middle and working classes. Once again, the reported exposure to articles etc. differs more from class to class than does TV-movie viewing. The difference between the middle and working classes for articles etc. is 16.4 percent while it is only 4.8 percent for TV-movie viewing. The few people who regard themselves as upper class do not fit the rest of the pattern. However, their responses do fit closely with those who reported incomes over \$15,000. Apparently these elites either don't have much time for TV and movies or at least feel that they should report that they don't.

TABLE 7

PERCEIVED SOCIAL CLASS AND EXPOSURE

percent exposed to

Reported self as	TV-Movies	"Books"	Articles etc.	(N=)
Upper class	43.8	28.1	68.8	(32)
Middle class	57.8	21.4	77.2	(631)
Working class	53.0	13.6	60.8	(674)
Lower class	27.3	1.8	32.1	(55)

The preceding socio-economic characteristics have a number of things in common as they relate to reported levels of exposure on the part of the sample to information on nuclear war and fallout shelters. For all of them, as the "status" scale goes up so does reported exposure. For all of them the differences between high and low values of the characteristic were greater for reported exposure to articles, booklets and pamphlets etc. than for television and movie viewing. Although this will usually be the pattern for the next variables to be considered it is not always the case.

Of the variables in the cluster of socio-economic characteristics education provides the greatest and most distinct association with reported level of exposure.

A number of other respondent characteristics were found to have an effect on reported exposure to communications media providing information on nuclear war and fallout shelters. These consist of basic personal attributes such as age, race and sex or selected types of social behavior or experience such as military service, religion, political preference, and composition of household.

Age. Exposure to information about nuclear war and fallout shelters is found in Table 8 to be a definite function of age. Young people in the sample report consistently higher levels of exposure than do older people. This result, unlike those reported earlier, provides greater differences for TV-movie viewing than for exposure to reading matter. With a spread of from 72.7 percent exposure to TV-movie

information for those under thirty years of age to a low of 28.5 percent for those sixty and over it appears that a real difference holds between the generations. Since younger people are generally better educated than older ones, the finding for articles etc. is largely as expected. Of all the characteristics considered, age results in the greatest differences for television-movie exposure.

TABLE 8

AGE AND EXPOSURE

percent exposed to

Age	TV-Movies	"Books"	Articles etc.	(N=)
under 30	72.7	23.3	75.2	(289)
30-39	61.3	22.5	71.5	(372)
40-49	52.3	14.3	67.0	(350)
50-59	39.3	11.3	62.7	(239)
60 and over	24.5	6.9	50.0	(144)

Sex. Males in the sample report consistently higher exposure to all communications sources than females. This is the usual disparity found between the sexes for information levels concerning public affairs. Table 9 summarizes these results.

TABLE 9

SEX AND EXPOSURE

percent exposed to

Sex	TV-Movies	"Books"	Articles etc.	(N=)
Male	57.2	20.7	70.6	(649)
Female	51.3	13.6	64.3	(774)

Aside from quasi-psychological considerations such as "lack of interest" one of the frequent determinants of lower female information levels is the discrepancy found between overall male and female formal education. Males are more likely to continue their formal education than females. Table 9A which specifies level of exposure to information from reading articles etc. for males and females of comparable education, introduces an interesting qualification into the summary patterns of Table 9.

TABLE 9A

SEX, EDUCATION AND EXPOSURE TO ARTICLES ETC.

EDUCATION	MALES (N)	FEMALES (N)	"DIFFERENCE"
Grammar School or less	48.4 (162)	34.4 (148)	14.0
Some High School	63.8 (138)	55.0 (189)	8.8
High School Grad.	79.0 (167)	72.3 (264)	6.7
Some College	66.3 (73)	85.5 (117)	1.8
College Graduate	88.3 (111)	88.3 (60)	0.0

Examination of Table 9A reveals an especially interesting pattern of differences in exposure to articles etc. between the sexes. Those with little education, grammar school or less, not only have the lowest overall exposure for both sexes but also have the greatest difference between sexes, 14.0 percent (48.4 percent for males versus 34.4 percent for females). For those who have graduated from college there is no difference at all, both sexes report 88.3 percent exposure. And for each intermediate educational level progressively smaller differences between the sexes are found. Those who attended but did not graduate from high school have males 8.8 percent higher in reported exposure to articles etc. than females, those who graduated from high school report a 6.7 percent difference between the sexes and those who attended but did not graduate from college a 1.8 percent difference.

TABLE 9B

SIX, EDUCATION AND EXPOSURE TO TV-MOVIE VIEWING

EDUCATION	MALFS (N)	FEMALFS (N)	"DIFFERENCE"
Grammar School or less	35.8 (160)	39.1 (146)	-3.3
Some High School	53.4 (137)	49.5 (188)	+8.9
High School Grad.	64.1 (167)	55.0 (262)	+9.1
Some College	71.6 (74)	59.8 (117)	+11.9
College Graduate	67.2 (110)	55.0 (60)	+12.2

Table 9B specifies level of reported exposure to information from television and movie viewing for males and females of comparable education. The pattern of differences for this table is the reverse of Table 9A. As education increases so, generally, does exposure to TV-movie viewing, but here the differences between males and females of comparable education increase at the higher educational levels. In Table 9A education minimized the sex difference for exposure to articles. Table 9A shows that education maximizes the sex differences for TV-movie viewing. Females with a grammar school education or less actually report slightly higher exposure than their male counterparts, 39.1 percent to 35.8 percent for males. This difference reverses itself at the next educational level, some high school, where males report 4.9 percent higher exposure. The differences increase to 12.2 percent for college graduates.

The sex differentials observed in Tables 9A and 9B for the effect of education on exposure to these two basic communications media indicate that TV-movie viewing and the reading of articles etc. possess dissimilar exposure dynamics. The amount of exposure reported by the respondents is a function of two key elements, access and receptivity. By access is meant the simple volume of information a respondent may encounter. Thus if a respondent reads a great deal in general or watches television regularly his likely access to information can be regarded as high. However, coupled with this must be an evaluation of receptivity to given types of information. Does the respondent seek out specific data, does he recall and retain information he has been exposed to. Short of directly monitoring the whole of the sample's exposure to all types of communications it is impossible to determine if a respondent has read an article or watched

a program on nuclear war or fallout shelters. All that can be determined is if he can remember this reading or watching. A key component of receptivity is the saliency evoked by the actual exposure. Thus, the figures obtained for reported exposure do not provide a direct measure of the actual volume of information encountered by the sample. It is an amalgam of volume (or access) and receptivity that is reflected in the percentages obtained.

To illustrate, American women watch a great deal of television, the housewife certainly more than her husband. Yet, women report less exposure to television-movie viewing than men. This is a result of what they watch and the saliency of any information they may encounter.

In a related sense the impact of education on reported exposure to reading material on nuclear war and fallout shelters is most likely a compound result of the fact that educated people read more generally and that they also are more concerned with such matters and accordingly are more likely to look for information on these topics. They are also more likely to recall what they have read.

Table 9A indicates that for the less educated males manifest a greater interest than females in "public affairs" and that this is reflected in their reported exposure to articles etc. on nuclear war and fallout shelters. However, as education progresses, it may be postulated that females assume a greater sense of "responsibility" and participation in matters of national importance. Educated women are more likely to vote and take part in civic affairs in general. This effect increases with education to the point where the female college graduates in our sample report exposure to articles etc. as frequently as do their male counterparts.

The reversal of the relative effect of education on reported TV-movie exposure for the sexes can possibly be attributed to several factors. Firstly, it has been posited that females watch more television generally than males. Thus, for the less educated, where interest and saliency are lowest, the simple fact of greater access could account for the relatively high reported exposure of the females in the sample. As education increases so does receptivity, which may well result in males going out of their way to watch news programs and special presentations etc. Since females watch more television generally than males this increase in receptivity for them has less dramatic results.

Race. Negroes report less exposure than whites for all three communications media. To some extent this reflects the earlier findings on income, education, and occupation. However, the extent of the 14.1 percent difference for TV-movie exposure and 23.9 percent difference for exposure to articles etc. indicate that other factors may be pertinent. The present data do not permit analysis of the degree to which being "Negro" has any specific consequences for either exposure or receptivity to whatever communications sources may be available.

TABLE 10
RACE AND EXPOSURE
percent exposed to

Race	TV-Movies	"Books"	Articles etc.	(N=)
White	55.9	17.4	70.0	(1249)
Negro	41.8	12.1	46.1	(165)

Religion. For all three communications media Jews report the highest level of exposure. This particularly holds for exposure to literature on nuclear war or fallout shelters. Jews report 79.5 percent exposure to articles etc. while Roman Catholics are next with 69.3 percent followed by Protestants at 66.5 percent. The relatively low levels reported by the Protestants may be to some degree a rural-non rural result, relatively few Jews or Roman Catholics live in counties with no city as large as 10,000 population (see Table 2). However, the 79.5 percent response of the Jews in the sample is beyond that of any of the urban classifications, indicating other factors such as education pertain.

TABLE 11
RELIGION AND EXPOSURE
percent exposed to

	TV-Movies	"Books"	Articles etc.	(N=)
Protestant	52.6	16.1	66.5	(978)
Roman Catholic	58.9	17.5	69.3	(348)
Jew	63.9	30.8	79.5	(36)

Political Party. The two major American parties indicate relatively little difference in exposure. Republicans report 0.2 percent less TV-movie exposure than Democrats and 4.4 percent more exposure to

articles etc. The category of interest is that of "Other" which apparently comprises the "Independent" voter. The "Others" reported levels of 62.3 percent exposure to TV-movies and 79.7 percent to articles etc., like those for the Jews in Table 11. These figures indicate that some differential factor such as education accounts for the greater information level reported. The relatively low figures for those reporting "None" for political preference indicate a state of genuine apathy, both to politics as well as public affairs.

TABLE 12

POLITICAL PARTY AND EXPOSURE

percent exposed to

PARTY	TV-Movies	"Books"	Articles etc.	(N=)
Republican	53.5	15.8	70.4	(446)
Democrat	53.7	17.6	66.0	(745)
Other	62.3	26.1	79.7	(69)
None	55.7	12.2	59.1	(149)

Home Ownership. Respondents were asked if they owned or rented their homes. In view of the home fallout shelter program it was thought that home ownership might have a positive effect on information level. Table 13 reveals no special differences between renters and owners in level of exposure. The whole question of home ownership must bring into the analysis consideration of any age, income, or rural/urban qualifications which may pertain, and are in turn themselves related to level of reported information exposure.

TABLE 13

HOME OWNERSHIP AND EXPOSURE

percent exposed to

Ownership	TV-Movies	"Books"	Articles etc.	(N=)
Own Home	53.2	15.7	69.2	(906)
Rent Home	55.4	18.5	63.4	(513)

Composition of Household. The number and composition of the household of the respondents bears a relationship to the level of exposure reported. Table 14, which presents the results for number of persons in the household, shows the highest levels of exposure for those households with from three to six people. A drop occurs for those households with seven or more members. Households of only one or two people report the lowest exposure for both TV-movie viewing and the reading of articles. Since a household with more than one or two members is, for all practical purposes, one with children in it, two more tables are examined. Table 15 specifies exposure for those with children under 13 years old, and Table 16 for those with children 13 to 21 years old.

Those households with younger children, under 13, report the highest exposures, especially those with two or three in this age group. These range from 75.2 to 78.5 percent exposure to articles etc. It appears that the family with from two to four children has the highest exposure. Since many respondents indicated that their information on nuclear war and fallout shelters was brought home from school by their children, this result may only be a tribute to the efficacy of the grammar school shelter information program. More likely, however, these parents with younger children are more concerned and receptive to such information than other households. Also, the parents of younger children are apt to be somewhat younger themselves, which may explain the relatively lower exposure for those households with older children, compared to those with children under 13, as the parents of children 13 to 21 years old are likely to be somewhat older than the parents of younger children.

TABLE 14

NUMBER IN HOUSEHOLD AND EXPOSURE

percent exposed to

No.in Household	TV-Movies	"Books"	Articles etc.	(N=)
1	38.6	16.4	58.6	(114)
2	43.8	12.4	60.4	(354)
3	57.8	16.0	65.1	(256)
4	61.9	21.2	75.0	(307)
5	60.0	17.9	75.5	(195)
6	63.3	20.4	72.4	(98)
7 or more	52.0	17.3	61.2	(98)

TABLE 15

NUMBER CHILDREN UNDER 13 AND EXPOSURE
percent exposed to

No. children under 13	TV-Movies	"Books"	Articles etc.	(N=)
none	46.0	14.4	62.1	(730)
1	59.7	17.5	71.9	(263)
2	66.2	20.6	75.2	(213)
3	58.9	21.5	78.5	(107)
4 or more	66.0	20.7	64.1	(106)

TABLE 16

NUMBER CHILDREN 13-21 AND EXPOSURE
percent exposed to

No. children 13-21	TV-Movies	"Books"	Articles etc.	(N=)
none	54.3	18.0	66.7	(935)
1	53.4	14.1	68.4	(264)
2	57.2	17.2	74.0	(145)
3 or more	42.1	12.3	56.2	(57)

Military Experience. Households other than those of single women were asked if the male head had had any military experience, and if he had had military experience they were then asked if he had ever been in combat. Those households with males who had military experience reported higher exposure to information on nuclear war and fallout shelters. The differences are substantial, 14.5 percent more for TV-movie viewing and 11.7 percent more for exposure to articles etc. as seen in Table 17. A possible explanation for these differences may lie in the actual military experience itself such as film presentations and lectures. Reserve status or participation in veteran's organizations may also affect exposure.

TABLE 17

MILITARY EXPERIENCE AND EXPOSURE

percent exposed to

Experience?	TV-Movies	"Books"	Articles etc.	(N=)
<u>Had military experience</u>	60.5	21.0	72.3	(745)
<u>Did not have military experience</u>	46.0	11.6	60.6	(587)

The effect of actual combat experience from Table 18 seems to be of no real consequence. The differences are minimal, 0.9 percent less for TV-movie viewing of those with combat experience and only 1.5 percent more for articles etc. The determining factor seems to be military experience itself, regardless of any exposure to combat. This would indicate a simple social source of the military experience difference (such as reserve meetings) rather than any psychological accentuation of receptivity such as might have been expected to be brought on by combat experience.

TABLE 18

COMBAT EXPERIENCE AND EXPOSURE

percent exposed to

Combat Experience	TV-Movies	"Books"	Articles etc.	(N=)
<u>Had combat experience</u>	60.2	18.2	74.8	(269)
<u>Did not have combat experience</u>	61.1	22.7	72.3	(455)

4. Specific Media Sources

For each of the three basic communications media examined the respondents were asked to provide either a title or source. These responses were both diverse and ambiguous. A great many respondents found it difficult to recall the details of an article read, or TV program watched some time in the past. Whenever possible, at least the basic kind of source or show was obtained. For the question asking which books were recalled this ambiguity reached such proportions as to make the results unsuitable for the intended analysis. For analytic purposes this "Books" category can be regarded as a supplement to the item on articles and pamphlets read.

In addition to the general concern with the actual breakdown of specific types and sources of communications on nuclear war and fallout shelters this report must also consider discretely those respondents who report exposure to Civil Defense and other government sponsored communications on these topics.

Movies-TV Programs. Respondents who recalled seeing any movies or television programs on nuclear war or fallout shelters were asked to specify the titles of these. Included in these responses were exposure to radio and theater dramas and school and community presentations. Table 19 indicates that the bulk of exposure to television and movie communications consists of various drama and entertainment programming with some 61.6 percent of those recalling TV-movie exposure mentioning this type of exposure. The remaining 38.4 percent who were TV-movie exposed can be regarded as having had some minimum level of factual or technical information communicated. Since the overall exposure to TV-movies was 54.0 percent the combined news, government and community sponsored programs account for 20.2 percent

of the total sample which have been exposed to "factual" communications. In effect, the greatest part of the television-movie exposure was essentially non-technical. Films such as On the Beach, and the TV program Twilight Zone occurred with considerable frequency in the specified responses. Government sponsored films, including civil defense and military programs, accounted for 12.7 percent of the TV-movie exposure. This figure, related to the overall level of 54.0 percent, means that some 6.9 percent of the total sample responding recalled exposure to government sponsored films.

TABLE 19

MOVIES AND TV PROGRAMS VIEWED

Type of Program	Percent (N=1188)
Movies or drama programs on TV, Theater or radio	61.6
News or Public Affairs Programs, Radio or TV	23.0
Civil Defense, Government, or Military Films	12.7
School Movies or other Community Presentations	2.7

"Books Read". Table 1 showed that some 16.9 percent of the total sample recalled reading a "book" on nuclear war or fallout shelters. Examination of the specified responses for actual titles of books read reveals that those respondents who recalled having read a book about the topics involved did not always have in mind what is usually regarded as a "book". In fact very few of them did. Table 20 presents the actual distribution of specific responses. Apparently when asked to recall "books" the bulk of the respondents thought of anything at all they may have read, regardless of type of publication.

It can be argued that if the original 16.9 percent result was true something odd might be going on since in a national sample the incidence of book reading is not going to be very high in any case and the figure obtained would have indicated an unusually high level of exposure to information from books. In effect, the tables for "books" can be regarded as a supplement of sorts to the findings for articles, pamphlets, booklets etc. read. Again, as for TV-movie viewing, most of the reported exposure was from what can be regarded as "popular" sources.

TABLE 20

"RESPONSES TO "BOOKS READ?"

Type of Response	Percent (N=163)
Articles from popular magazines or popular books	60.8
Serious books or magazines	22.0
Civil Defense pamphlets	17.2

Articles Etc. Articles, booklets, and pamphlets accounted for the greatest overall level of reported exposure. Over two-thirds of the sample recalled reading one or another of these types of sources. These 67.2 percent of the sample were asked to further recall just where such articles etc. appeared. Table 21 presents these responses.

Civil Defense publications accounted for 23.8 percent of the reported exposure. Other government agencies accounted for 10.2 percent and the remaining 66.0 percent were either unable to recall the specific source or answered that various popular media such as newspapers, magazines, etc. accounted for their exposure.

Related to the total sample, and not just those reporting exposure, the Civil Defense publication exposure results in 16.0 percent of the total sample so exposed. Similarly the 10.2 percent figure for other government agencies comprises 6.0 percent of the overall

sample. Thus over a fifth of the total sample, 22.9 percent of those answering, can be regarded as reporting exposure to government or civil defense supplied information on nuclear war and fallout shelters.

TABLE 21

SOURCE OF ARTICLES, BOOKLETS OR PAMPHLETS READ

Source	Percent (N=874)
From Civil Defense Publications	23.8
From other government agencies	10.2
Specified other sources	54.1
Unspecified other sources	11.9

5. Time of Interview

During the course of the field interviewing negotiations for a nuclear test ban agreement were initiated, completed and announced. Directly after this the House Committee approved the administration fallout shelter program. As the negotiations proceeded and announcements were made the level of exposure reported increased for all three communications sources.

Table 22 reveals an increase in the level of reported exposure for those respondents who were interviewed during the period of negotiations and agreement on the test ban agreement and shortly after the House Committee announcement of approval of the administration fallout shelter program. The sample proved sensitive to the news reportage and government announcements attendant on these events directly concerned with the topics under consideration. Reported exposure to articles etc. increased when negotiations commenced and remained at roughly the same level, 71.8 percent to 69.7 percent compared to the initial low of 65.4 percent. Television and movie exposure increased somewhat more steadily, going from a pre-negotiation low of 51.6 percent to a high of 60.2 percent after the announcement of the agreement.

TABLE 22
TIME OF INTERVIEW (TEST RAN) AND EXPOSURE

percent exposed to

Events	TV-Movies	"Books"	Articles etc.	(N=)
Before negotiations started prior to <u>7/21/63</u>	<u>51.6</u>	<u>15.0</u>	<u>65.4</u>	<u>(921)</u>
While Negs. going on and before agreement announced, <u>7/21 to 7/25</u>	<u>56.4</u>	<u>17.8</u>	<u>71.8</u>	<u>(117)</u>
After agreement announced and before House Committee approval on fallout shelter program	<u>60.2</u>	<u>21.4</u>	<u>70.1</u>	<u>(191)</u>
After House Committee approved administration fallout shelter program Aug. 14, 1963	<u>58.0</u>	<u>21.1</u>	<u>69.7</u>	<u>(193)</u>

6. Conclusions

A sizable portion, over two-thirds, of our national sample of 1434 Americans reported exposure to one or another of the basic sources of information on nuclear war and fallout shelters. Most of this exposure was to what can be termed "popular" communications media. However, a significant percentage, 16.0 percent of the total sample, reported exposure to civil defense publications and another 6.9 percent to other government sponsored reading material. Thus, better than a fifth, 22.9 percent, of the total sample were able to recall exposure to government sponsored information of various types.

Exposure to the information media varied with a number of respondent characteristics. Education plays a considerable role in reported level of exposure. The more educated watch more television on these topics, see more movies and read more. Variables such as income and

occupation provided similar results, the higher status characteristics resulted in high levels of exposure. Generally, for these and other characteristics, the differences obtained for patterns of exposure were greater for exposure to reading material than for television and movie viewing. Although significant differences were obtained for different groupings of respondents, TV-movie viewing can be generally regarded as a more homogeneous information source than reading. A notable exception to this finding was the effect of age on reported exposure. Younger people were generally more "exposed" than older and this held true especially for TV-movie viewing. Respondents under thirty years of age were one of the few groups where TV-movie viewing approached the level of exposure reported for articles, booklets etc. 72.7 percent of these young people reported TV-movie sources and 75.2 percent reported reading articles etc.

Even those respondents with less than a grammar school education reported a higher level of exposure to reading material than for TV-movie viewing, 42.6 percent for articles etc. and 38.1 percent for TV-movies. Only the extremely low income respondents, those with an annual family income under \$3000 reported higher exposure to TV-movies than to articles, booklets, and pamphlets etc. with 43.3 percent reporting TV-movie exposure and 41.7 percent exposure to articles etc. Only the handful of farm laborers in the sample did likewise.

In almost every instance the written word accounts for more reported exposure to information on nuclear war and fallout shelters than do television or movies.

Examination of the overall levels of exposure during the period of the progress of the nuclear test ban negotiations and final agreement points up the sensitivity of the sample and their sources of information to the actual course of related events. The increments in exposure over time were not dramatic but they were certainly consistent. As "things happened" respondents were more likely to report exposure to information.

The question "who are the people exposed to information on nuclear war and fallout shelters?" has been at least partially answered. They primarily are the young, well educated and well off. The obverse inquiry merits some consideration. Those who live in rural areas, are less well educated and less well off comprise the population who have had substantially less exposure to information on these topics. In view of the ubiquitous nature of television as a prime communications medium in our society its performance as a source of information on nuclear war and fallout shelters must be questioned. Even the poor and uneducated get most of their information from written material and what information they do get from TV-movie viewing can be regarded as essentially frivolous or unrelated to the realities of the situation. Only 12.4 percent of the total sample could recall a news or public

affairs program on the topics of nuclear war or fallout shelters. This must represent a failure on the part of the medium. Direct exposure to civil defense publications alone provided a considerably higher level of exposure, 16.0 percent for the total sample. If the public, especially those elements of the public that compose the relatively deprived, is to be informed on these matters then television and radio must play a far greater and more responsible role than they presently do.